

Donald Ryder Dickey
Field Notes

April 20, 1916 - May 24, 1916

SAN DIEGO NATURAL HISTORY MUSEUM

April 20, 1916.

Took a whirl around to see the country - first down to see the Verdin nest in the bottomland willow association along the Colorado. The mosquitoes are certainly out in force but pleasantly surprised in the weather. Hot, of course, at mid-day, but cool night and morning and cold enough at night to sleep in my feather bag. Last night the desert moon was at its best, and a mocker sang near my bed all night. Find Aunt May on the job, and as a result we will be well fed and well provided with nests of small birds. They have been given the run of a rancher's house and place during his absence, and the screened porch will prove a godsend during the hottest hours. Aunt May and Laurence are even sleeping inside to avoid squeeters, but give me the ground with all its scope, etc. Am thankful my all-purpose sleeping bag is skeeter proof. We are making headquarters at the ranch of Perry Griggs, a man to whom J. W. Whitney (Bard, Imp. Co., Cal.) introduced Laurence. The ranch is about a mile west of Potholes near the main canal. After we had worked the bottom for half an hour, and failed to collect an aggravating Chat and Yellow Warbler, we took the Ford and struck west along the dike of the main canal. Passed quite a colony of Rough-winged Swallows and saw a couple of Great Blue Herons (Subsp.). Laurence showed me a Crissal Thrasher nest with young saved for photos. Then we looked over some marshy ground where coon and muskrat tracks are plentiful. Shall set a trap camera for former. Nothing in the cotton rat traps.

In the afternoon went into Yuma for rest of dunnage, mail, etc. On way back found Vermilion Flycatcher building and good prospect for Gila Woodpecker and Kearns ^{Flicker} Flycatcher in cottonwood stub. Saw two or three pairs of Mexican ground doves and heard a White-

winged Dove cock-a-doodling in their odd rooster-like manner on the outskirts of Yuma.

These White-wings seem uncommon about here. The natives say that in some years they come in here in numbers after the nesting season.

Vermilion Flys seem common - nesting well up and out from trunk on horizontal limbs of large cottonwoods by the roadside. Unlike the Pewee, these Vermilions seem invariably to start their nests with a frail platform of twigs put across a horizontal fork. On top of these the nest proper is built. This is, in itself, not unlike a Pewee's. I have been struck all day by the numbers of desert quail and rabbits and doves about. Should make good shooting in the fall.

Birds collected today were:

D 233 - Desert Quail	male	11.50"	Coll. by D. R. Dickey.
D 234 - Dwarf Cowbird	female	6.50"	Coll. by L. Huey
D 235 - Rough-winged Swallow	male	5.75"	Coll. by L. Huey
D 236 - Mourning Dove	male	12.50"	Coll. by D. R. Dickey.

April 21, 1916.

Stayed in camp and wrote letters today so as to be a bit acclimated before starting hard work. J. M. Whitney (whose P. O. address is Bard, Imp. Co., Calif.) came over and we had quite a talk. He is a Pasadena man who came down here five years ago and has grown wedded to the country in spite of doubts as to its future and curses at its heat.

Laurence and Aunt May drove in toward Yuma to pick up some sets found previously - one set of Vermilion Flycatcher was found to contain three eggs and was collected with nest. (Set. No. D16).

Two other Vermilion Flycatcher nests were still only building. Abert's Towhee N/2 found on the 16 now contained 1 yug. and 1 infertile egg so it had been a short set all the time. The hole supposed to belong to a Gila Woodpecker contained an Elf Owl instead - apparently just roosting there. Taken alive to camp for photos.

P. S. Refused mice, etc. and ultimately died on 4/24/16.

In the evening there was a gorgeous red sunset, but unfortunately I had no autochromes loaded up so had to let it fade without "Firing a shot." It is the best sunset I have seen since I've been making autos so it rather hurt. There have been filmy clouds all day so I might have known what was coming. Loaded plates this evening and by bed time it had come off clear and wonderful so now there is doubtless no chance of a repetition.

L. Huey collected the following birds today:

(They also thought they saw Cooper Tanager)

D 237 - Yuma Horned Lark male	7.00"
D 238 - Yuma Horned Lark female	6.50"
D 239 - Mexican Ground Dove male	7.00"
D 240 - Mexican Ground Dove female	6.75"
D 241 - West. Warb. Vireo female	5.00"
D 242 - Townsend Warbler male	5.25"

(Cf. also D. 256 - Elf Owl - male - 5.50". Skin made up on 4/24/16.

Nests collected today were:

D 16 - *Pyrocephalus rubinus mexicanus* - A. O. U. no. 471.
 Vermilion Flycatcher N/3
 Bard, Imperial Co., Cal.
 4/21/16 - Inc. well begun - birds about.
 Coll. by M. Canfield
 Nest typical nest cup built on a foundation of a few crossed twigs placed by bird and whole saddled on a limb of cottonwood - 35' from ground.

April 22, 1916.

A muskrat was flopping around in a small puddle of water left by the receding irrigation water which is shut off for over Sunday. Went back for some traps and set them. Then down to Potholes and the Laguna Dam and worked the birds in the willow growth along the river as we came home. Sonora Yellow Warblers appeared common. They are apparently not yet nesting, though I found one nest half completed which I attributed to them.

Arizona Least Vireos are likewise common in these bottoms. Aunt May collected N/3 and found half finished nest of this species - saw a green Heron (Anthony's I suppose) and a last year's nest,

presumably of this species. There were two pairs of L. t'd Chats in the region we worked and, as usual, they were noisy and invisible. A couple of cormorants were flying about the dam, and I took them for Farallon.

Wrote up notes in the afternoon, and then went down west along dike to our coon ground and set up Nesbit trap camera with some salt fish as bait.

Home by way of Bard in the late evening for butter, etc. and then home for a late dinner.

Birds collected were:

D 243 - Son. Yellow Warbler	male	5.00"	- Coll. by D. R. Dickey
D 244 - " " "	male	5.00"	" "
D 245 - " " "	male	5.00"	" "
D 246 - Calaveras "	male	5.00"	- Coll. by L. M. Huey
D 247 - Golden Pil. "	male	5.00"	" "
D 248 - Salton Sink Song Sparrow	male	6.00"	" "

Nests collected today were:

D 17 - Vireo belli arizonae - A. O. U. 663a - part.
 Arizona Least Vireo
 Potholes, Imp. Co., Cal.
 4/22/16 - Well adv. Both birds about.
 Coll. by M. Canfield
 Nest typical cup lashed by rim to terminal
 fork of willow limb 3' from ground - in dense wil-
 low bottom of the Colorado River.

These Salton Sink Song Sparrows have us all guessing when it comes to nesting. They are common both in the willows and tules along the canals and river and perhaps even more so in the impenetrable arrow weed thickets and yet we cannot find a single nest. Either they are astonishingly concealed or else they have not begun yet. Ovaries of females killed lately are not fully developed so tend to uphold the latter view.

Sunday, April 23, 1916 - Easter

Just discovered at supper time that today was Easter, but

April 23 - 1916

the news came too late to save us a hard day's work. Laurence and I were up and away at 6:00 and drove the five miles or so west along main canal to second bridge below Potholes. Crossed there and left Ford - saw a bird in flight which we considered unquestionably a Cooper Tanager, but were unable to overtake it. This farther bank of the main canal is wild desert land, and we hunted up one dry wash after another but without finding many nests. There are quantities of large ironwoods and palo verdes and the usual collection of mesquite and greasewood scrub, but birds seemed scarce. I was surprised to see one of the *Ocotia* cactus groups still in very fair preservation of its flowering stage. Laurence says the *Ocotias* and the Palo Verdes were a show when he first came down in March. There seems still an abundance of migrating small birds and we took Gold. Pil., Townsend and Calaveras Warblers, West. Fly., and another Flycatcher, presumably Wright's. These were common. All the Lucy Warblers we could see were two pairs, which appeared wild and did not divulge their nest hiding place. I found an Abert Towhee nest ready for eggs. -4ft. up in a mesquite clump near the canal. A little farther on a Crissal Thrasher nest was also just completed and Laurence found an Arizona Least Vireo nest ready for eggs (nest destroyed). Laurence also found two Cactus Wren nests with one and two fresh eggs, respectively. In one big ironwood tree I found a fine old Woodpecker cavity which Ash-throated Flycatchers had chosen as future nesting site. In the same tree a *Phainopepla* had an unusually pretty nest built on top of the two branches of a horizontal terminal fork 12' up. It contained two fine fresh eggs, but as Laurence was cooning out for it, the limb broke - eggs also - not so Laurence - luckily!

Finally we reached a broad flat canon mouth filled completely with mesquite. It was so late by this time that we could not do this

patch justice, so we left it after searching in vain for an aggravating Arizona Least Vireo nest.

Did find an Abert Towhee N/3, however, so managed to break my run of luck at last.

Shot at a Green Heron and Road-runner on way home, but both were too far. Made a pretty shot this morning by a lucky freak. Two quail were lined up in the road about 30 yds. ahead of the Ford and running straight away. Decapitated both with one shot of the Hi-power.

Not home 'till 4 p. m. - no lunch - Easter!

Birds collected today were:

D 249 - Calaveras Warbler	male	5.00"	Coll. by L. Huey
D 250 - Sonora Redwing	male	9.50"	Coll. by D. R. Dickey
D 251 - Ash-throated Flycatcher	female	8.25"	Coll. by L. Huey
D 252 - Townsend Warbler	male	5.00"	coll. by D. R. Dickey
D 253 - Western Flycatcher	female	5.25"	Coll. by L. Huey
D 254 - Flycatcher	male	5.75"	Coll. by L. Huey
D 255 - Hammond Flycatcher	female	5.40"	Coll. by L. Huey

Nests collected today were:

D 18 - Pipilo aberti - A. O. U. - No. 592
 Abert Towhee N/3
 5 miles west Potholes, Imper. Co., Cal.
 4/23/16 - Well adv. - Id. Positive.
 Coll. by D. R. Dickey
 Nest typical deeply cupped affair of bark strips, grasses, etc., 5' from ground in heart of the densest of mesquite patches.

Whitney came over late for a while.

Still no muskrat in traps. Guess he must be too wise for us as Laurence caught another glimpse of him this a. m.

April 24, 1916.

Monday

Stayed in bed 'till late for us - while Laurence made up the last of yesterday's birds.

Finally got away about 8:30 and went west along main dike to look at Vireo nest found previously. Birds had deserted as they seem very prone to do down in this desert country if you so much as look at the nest before set is complete. I found a Verdin ready for eggs and

April 24-1976

Aunt May collected Verdin 1/4. Collected few birds. Then went on into Yuma for ladder material, etc., in preparation for our Sahuaro trip with Whitney on Wednesday. On way home I spotted a Flicker as she left nest hole in leaning burned cottonwood. On climbing it, Laurence found the burrow just ready for eggs. Replaced part chopped out, and hope they will go ahead and finish set. The odd part is that as well as we can tell in life the female is a characteristic Gilded Flicker and the male quite as distinctly red-shafted. Nearby Aunt May discovered a Vermilion Flycatcher nest saddled on a cottonwood limb 25' from ground. On climbing it proved to contain three young beginning to feather out. While standing around looking for more nests in this same clump of big cottonwoods, I heard a new bird call note - a triple "whit whit o" with decided inflection on middle syllable. It proved to be a splendid male Cooper tanager, but a vile squib load prevented my getting him. Found Elf Owl (see 4/21/16) dead on arrival at camp.

Birds collected today were:

D 256 - Elf Owl	male	5.50"	Coll. by L. Huey 4/21/16 - Bard, Imp. Co. Call
D 257 - Salton Sink Song Sparrow	male	6.00"	Coll. by L. Huey
D 258 - Grosbeak	female	8.25"	Coll. by D. R. Dickey
D 259 - Abert Towhee	male	8.75"	Coll. by D. R. Dickey
D 260 - Abert Towhee	female	8.90"	Coll. by L. Huey
D 261 - Western Flycatcher	female	5.00"	Coll. by L. Huey
D 262 - Poorwill	female	8.00"	Coll. by D. R. Dickey
D 263 - Poorwill	female	8.00"	Coll. by D. R. Dickey

Eggs collected today were:

D 19 - *Auriparus f. flaviceps* - A. O. U. No. 746
 Verdin 1/4
 4/24/16 - Inc. adv. - Id. positive
 Nest typical globular affair of mesquite twigs, etc.
 lined with feathers, etc. and placed in upright mes-
 quite fork four feet from the ground. Entrance to
 nest on under side as usual.
 Coll. by M. Canfield
 5 miles west from Potholes, Imp. Co., Cal.

In the evening Laurence took me out for Poor-wills after his own approved method. He took the powerful electric "Jack" light and I took the .44. Followed little open cross dike in middle of alfalfa field where mosquitoes and insects were thick, and had not gone 100 yds. 'till we saw the dull, rec-copper glow betokening Poorwill which I shot - 10 feet further and we repeated performance. Certainly must be hordes of the birds and certainly an easy method.

April 25, 1916.

Tuesday

Went hunting at 7:30 by myself while Laurence put up the last of yesterday's birds. Brought in five birds and then started for the river bottom with Aunt May while Laurence skinned. At last the Cooper Tanagers seem to be coming in. I saw two and heard another but had nothing but squib aux shells with too light a load for so shy a bird. They are in full song - a melodious rollicking lilt which is almost the counter part of the Black-headed Grosbeak at his best. In addition they have the triple noted tanager call note heard yesterday and a throaty "t r r r" with which they once or twice amplified their call note. Chased them all over the place but failed to collect one. Aunt May stuck to Yellow Warblers and made a killing - six birds with six shells.

In the afternoon made ladder and wrote letters, etc.

Laurence in our absence had found a Desert Quail nest with eight fresh eggs quite near the house.

The poor Kingbirds are having a hard time building, as they are afraid to go to nest when windmill turns.

Birds collected today were:

D 264 - Vermilion Flycatcher	male	5.50"	Coll. by D. R. Dickey
D 265 - " "	female	5.40"	" " "
D 266 - Verdin	male	4.00"	" " "
D 267 - Abert Towhee	male	9.00"	" " "

D 268 - Abert Towhee	male	9.00"	Coll. by D. R. Dickey
D 269 - " "	juv. (?)	6.00"	" " " "
D 270 - Yellow Warbler	male	4.75"	" " " "
D 271 - " "	female	4.50"	" " M."Canfield
D 272 - " "	male	5.00"	" " " "
D 273 - " "	male	5.00"	" " " "
D 274 - " "	male	5.00"	" " " "
D 275 - " "	male	5.00"	" " " "

Quite a day for skins.

April 26, 1916.

Wednesday

Whitney could not take us to the "Senator" today so we left fairly early for a morning of nesting down toward Bard. First thing of interest was a likely looking hole in dead limb of large cottonwood. On investigation it proved to be the original "family tree". Three holes all within 3' of each other in the same limb contained Desert Sparrow Hawk 1/4 (collected) Sahuaro Screech Owl brooding 3 (?) young three or four days old, and a Flicker nest with two fresh eggs. Female around and apparently Mearns Gilded Flicker. Patched up the last two openings and hope they will continue their domestic affairs. Cut down and lowered another stub with good looking hold - quite a bit of work, but hole proved empty. Across road pair of Ash-throats were building madly in old woodpecker hole ten feet from the ground. Higher up in nearby tree Aunt May discovered the head of a Sahuaro Screech Owl with apparently closed eyes as it sat enjoying the air at the mouth of its nesting hollow. On seeing us it ducked back out of sight, but not 'till she had given her secret away. On climbing it, Laurence found that this nest also contained young. In this case they were about a week or more old.

Saw two more resplendent red male Cooper Tanagers this morning in this clump of cottonwoods. They are all unaccompanied by females and are . . . apparently just coming in to the country. Although in full song, and for that reason, and because of their color, very conspicuous, they are, nevertheless, hard to get, for they only stop

April 26-1916

in each tree clump for one or two bursts of song, and then fly on to another cottonwood or grove, a quarter or one-half mile away.

Huey saw what he is positive was a Hermit Thrush - saw rufus tail and all.

Next tackled a tule swamp where a colony of Sonora Red-wings were nesting in dense tules over knee-deep water. Hardest kind of work but rewarded by 2 N/4 and N/3 (d.r.d.) and N/4 and 2/3 (huey). Several sets incomplete, and were left. Found two more cottonwoods that look like "colony trees". Several good holes in each of them, and from one of the holes in each stub a Flicker flew as we rapped. Left both 'till we can come back with ladder as dead cottonwood bark would not hold climbers securely. Saw first Western Tanager noted - feeding 5' from my nose on mulberries.

Also a third Cooper Tanager. Aunt May took Verdin N/4 and found another Verdin with young. Bullock Oriole had N/2 fresh eggs in nest swung to pendant limb of cottonwood within 4" of where its last year's nest had been - left as incomplete.

Vermilion Flycatcher apparently building in nearby cottonwood. Into Bard for butter and then home to find that either Whitney's egg sucking dog or a snake had made an end of all but one of the eggs in Laurence's quail nest near the house. "Suancito" (as the Mexicans call them) or "Senator" as Laurence calls him, was here to welcome us back to camp in his characteristic Antelope Valley Ground Squirrel lingo. Grub tasted mighty good when we got to it about 3:00 p. m.

I wrote notes, etc. in the afternoon while Laurence blew eggs, etc. Finally I went down to look at the Verdin nest we have been saving in the willow bottom for photos and found that the young had flown. As I stood at nest I heard the characteristic call note of a Cooper Tanager

"put-tar-kut" is as near perhaps as anything. Set out in pursuit but found him very wild and it was over an hour before I could circumvent him and only did it then by marking the direction he was working and then running around a large detour to get ahead of him. He then flew to my ambush up/and let me aux. him. Also took adult male Black-headed Grosbeak (subspecies?) by mistake. His full lilting song so resembled the Cooper Tanager's that I thought him one and shot at the first movement among leaves.

Birds collected today were:

D 276 - Sonora Redwing	male	9.50"	L. Huey, Bard, Imp. Co., Cal.
D 277 - Black-headed Grosbeak (Subsp.?)	male	8.25"	D. R. Dickey, Pot-holes, Imp. Co., Cal.
D 278 - Cooper Tanager	male	8.00"	D. R. Dickey

Eggs collected today were:

- D 20 *Falco s. sparverius* - A. O. U. 360
 Sparrow Hawk - 1/4
 Bard, Imperial County, California.
 4/26/16 - Inc. well begun - Male inc.
 Nest an oldunlined Woodpecker cavity in a dead stub of a large cottonwood - cavity about 20" deep and 25' from ground.
 Coll. by L. Huey and D. R. Dickey.
 In same stub and within three feet was Mearns Flicker hole with two fresh eggs and Sahuaro Screech Owl hole with small young.
- D 21 *Agelaius p. sonoriensis* - A. O. U. 498a
 Sonora Redwing - N/4
 Bard, Imperial County, California.
 4/26/16 - Inc. begun - identity positive.
 Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems three feet above the water of small reed swamp.
 Coll. by D. R. Dickey.
- D 22 - *Agelaius p. sonoriensis* - A. O. U. 498a
 Sonora Redwing - N/4
 Bard, Imperial County, California.
 4/26/16 - Inc. well adv. - identity positive
 Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems three feet above the water of small reed swamp.
 Coll. by D. R. Dickey.

- D 23 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/3
Bard, Imperial County, California.
4/26/16 - Inc. far advanced - identity positive 1 egg broken
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above water of small reed swamp.
2 eggs saved - Exterior brown
Coll. by D. R. Wickey. Type _____
- D 24 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California
4/26/16 - Inc. slight - identity positive
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.
Coll. by L. Huey.
- D 25 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - 1/3
Bard, Imperial County, California
4/26/16 - Inc. slight - identity positive
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.
Coll. by L. Huey
- D 26 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - 1/3
Bard, Imperial County, California.
4/26/16 - Inc. slight - identity positive
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.
Coll. by L. Huey
- D 27 - *Auriparus f. flaviceps* - A. O. U. 746
Verdin - Nest only NEST ONLY
Bard, Imperial County, California.
4/26/15 - Inc. fairly adv. - identity positive
Nest typical globular structure of mesquite twigs
and dry stems lined with feathers, etc. and placed
eight feet up in upright fork of mesquite. Birds
about uttering characteristic alarm note.
Nest found by M. Canfield
Broken in blowing - Inc. varied markedly.

April 27, 1925
Thursday

Left camp at 7:00 for another morning's nesting and as we
turned out of our ranch road a fine fox crossed the road ahead of the
Ford - First varmint I have seen - certainly a dandy. Turned in at a
ranch where they had a brushed out picnic ground and fine grove of wil-

April 27-1916

lows. In patch of tules by the road Laurence took N/4 Sonora Redwing and I found set N/3 of same and some incomplete nests. Left all of latter and must remember to go back later. In one of the willows Aunt May found a hole with an Elf Owl at the entrance so we gathered him in alive. (See notes on 4/29/16). A dove's nest which I found contained two incubated eggs - left - ten feet up in willow. A Gila Woodpecker hole in same stub with the Elf Owl was just ready for eggs. Higher up still an English Sparrow also had a nest all lined for eggs. These pests have apparently spread widely all over Imperial and Yuma Valleys. A Vermilion Flycatcher found by Aunt May 35' up in cottonwood had well developed young. I found a Green Heron nest which looked as though it had had recent additions and in conjunction with a fine adult of this species seen nearby, it makes a combination worth watching on the chance of eggs later. Seem common here. Moved on to next cottonwood grove and cut out another Gila nest hole 20' up. It also had just been completed, but no eggs - unfortunately we had to spoil hole so fear they will desert. They appear to have fresh sets not earlier than the first week of May as we have no eggs at all, so far, of this species. Found a new nest of Arizona Least Vireo, myself, while Laurence was working on the Gila hole. Hope the birds did not see me at the nest as they seem very prone to desert unfinished nests or even fresh sets if they see you at or near their nest.

Next we drove on to a clearing with a few fine cottonwoods. In one of the latter another pair of Gilas had a nest, but we did not climb it as they did not show much anxiety and we seem early, anyway, for them. Couple of Lutescent Warblers still about in the willows, (shot one, but not saved) and a good many Golden Pileolated still about. In a mesquite patch nearby I found Abert Towhee N/3 and one Dwarf Cowbird. This is the first Cowbird egg taken in spite of the

Apr 27-1916.

myriads about. Left for photos. On the way home Laurence found and collected Sonora Redwing N/4 and 1/4, and found some other incomplete sets. This was in the colony near Whitney's. I found N/5 young Sparrow Hawks in dead cottonwood stub 15' up - old flicker hole -. Collected four of the young for skins and was interested to see that the juvenile plumage of the males and females was differentiated as clearly as in the adults. Was surprised to find they were being fed entirely on lizards. The stomach of one (#281 D) contained a single piece of lizard 5" long. Another interesting thing about the development of these young birds is that the preterminal cutting tooth (most noticeable on upper mandible) is developed at a late date - mostly when the juvenile down is about to be shed. Farther up the same ditch Laurence chopped out several holes that looked good in one cottonwood, but all were empty save one containing 1/5 handsome Sparrow Hawk eggs (collected). On the way to the machine I spotted a Flicker hole which looks good for eggs, to judge by the actions of the birds. Photographed Elf Owl in captivity. Photo Record - Elf Owl in captivity. At hole - Sunset sun through window screen. Exp. 1/6 to 1/10 at F. 8 - 5X sp. Pk. Then out in the early evening for bait and mail and to pick coon camera - not touched. I shot large Mephitis with Parker.

Potholes, Imperial County, California:

Birds collected today:

- D 279 - Sparrow Hawk - male juv. 6.50" - Coll. by D. R. Dickey.
Stomach contained small lizard - 3" long - nothing else.
- D 280 - Sparrow Hawk - male juv. - 6.50" - Coll. by D. R. Dickey.
Stomach contained good-sized lizard - whole - nothing else.
- D 281 - Sparrow Hawk - female juv. - 7.50" - Coll. by D. R. Dickey.
Stomach contained partly digested lizard which had apparently been fed whole. Part remaining measured 5" - nothing else.

D 282 - Sparrow Hawk - female juvenile - 7.25" - Coll. by D. R. Dickey.
Stomach contained partly digested pieces of lizard, several insects - and, to my regret, a wad of tiny feathers which could hardly have been anything but digested remains of some warbler or small bird - First actual evidence of bird destruction I have got against sparverius.

D 283 - Salton Sink Song Sparrow - male - 6.00" - Coll. by L. Huey.

Eggs collected today were:

- D 28 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California.
4/27/16 - Inc. begun - Id. positive
Nest typical - deeply cupped structure of interwoven tule blades lashed to growing tule stems three feet above the water of small reed swamp.
Coll. by L. Huey.
- D 29 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Two miles west of Potholes, Imperial County, California.
4/27/16 - Inc. begun. Id. positive.
Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems three feet above the water of small reed swamp.
Coll. by L. Huey.
- D 30 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - 1/4
Two miles west of Potholes, Imperial Co., Cal.
4/27/16 - Inc. slight - Id. positive
Nest deeply cupped structure of interwoven tule blades lashed to growing tule stems three feet above the water of small reed swamp.
Coll. by L. Huey
- D 31 - *Falco s. sparverius* - A. O. U. #360.
Sparrow Hawk - 1/5
4/27/16 - Inc. adv. - Identity positive.
Nest a natural unlined cavity in a cottonwood stub twenty-five feet from the ground.
Neither bird inc. because of heat, I imagine, but female came chattering about us as Laurence climbed.
Found first by M. Canfield.

Mammals collected today were:

- D 71 - *Mephitis* - female - 2 foeti
L. 24.50 - T. 12.75 - HF. 3.00 - E. .90
Potholes, Imperial County, California. Spoiled
Collected by D. R. Dickey.
4/27/16 - Shot with #6 shot in willow bottom near water.
Contained two large foeti.
Spoiled before prepared.

April 28, 1916

Friday.

Down to the "picnic grove ranch" and collected my N/4 Sonora Redwing found yesterday with three eggs. Hurried on to Bard to get early light for photos of Abert Towhee N/3 plus 1 Dwarf Cowbird egg which I found yesterday. It was in the townsite of Bard. After photographing and collecting set, drove back up to the tule swamp near Whitney's, where another N/4 Sonora Redwing was collected. Finally, after I had fired eight shots, I killed both parents of Flicker nest found by me yesterday. Both were alike and both were distinctly salmon orange - approximating collaris in coloring. Set of four eggs collected from their hole probably was incomplete set as there was a broken egg in oviduct. This would have completed her set if Laurence was correct in broken egg diagnosis. The Flicker hybridization, etc. (or whatever it is) interests me a lot down here. Across the road another pair of Flickers had a nest hole thirty feet up in cottonwood. It contained five well grown young ranging from the salmon orange of collaris up to the clear lemon yellow of mearnsi. Finally I succeeded in killing the adults and, on examining them, found the male to be rich orange red and the female lemon yellow. It remains to be seen what I really have but at least it is a family of unique chromatic variation - and I imagine is even more - i. e. an interesting and conclusive case of hybridization and its resulting intergrades. The Mendelian law should be applicable here. In the same grove Laurence found nest of four young Sparrow Hawks still in the down and collected one. Kingbird had nest ready for eggs. Also collected female Vermilion Flycatchers and male Sonora Yellow Warbler. Walked home as Laurence and Aunt May had gone ahead in Ford. Sun not unbearable at noon without hat. Sure in luck with weather.

Tubbed, wrote, and photoed young Flickers in afternoon while Laurence put up skins and Aunt May looked for nests. Only thing she saw was family party of P. Gnatcatchers on wing. Am much struck by the dearth of hawks in this country. Have seen only two Redtails and Sparrow Hawks (here by myriad - feeding on lizards) in all the times I have been here. Owls seem fairly common. Sahuaro Screech are fairly numerous and Elf Owls are not as rare, apparently, as I supposed. One Barn Owl was collected by Laurence before I came and a Horned Owl was hooting one night, but big hawks scarce. This is probably due to the dearth of gophers and meadow mice and entire (?) absence of diurnal ground squirrels, etc. The number of pocket rats and mice would, on the other hand, keep the nocturnal Owls well supplied.

Skunk had begun to slip before we got to skinning it - things certainly spoil quickly. On dissecting, she was found to contain two foeti pretty well along. Rabbit bait set out last night for our fox not touched.

Photo Record - Abert Towhee N/3 plus 1 Dwarf Cowbird - Bard, 4/28/16 - four feet up in mesquite. Early light - shade thin cloth screen. Act. 1/16 tint. 6" - Exp. 8" to 25" at F. 32 - 5X sp.pk.

Auto Record - Young Flicker (sp?) in captivity - male. 4/28/16 - sunset sun. Act. took 1' to even half darken. Exp. 1/4 at F. 11. 5X sp. film.

Photo Record - Do. later. Sun act. touching horizon. 4/28/16.

(1) - 3 1/4 Exp. 10" at F 6.3

(2) - 3 1/4 Exp. 10" at F 6.3

(VII) - 5X 15" at F 6.3

(VIII) 5X 30" at F 6.3

Birds collected today were:

D 284 - Sparrow Hawk - (?) juv. - 5.00 - Coll. by L. Huey
 D 285 - Vermilion Flycatcher - female - 5.25" - Coll. by M. Canfield
 D 286 - Sonora Yellow Warbler - male - 5.00" - Coll. by D. R. Dickey.
 D 287 - Flicker (sp?) - female - 11.50" - Coll. by D. R. Dickey
 Inc. N/4 - Set. D

- Eggs collected today were:

- D 32 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California
4/28/16 - Inc. fresh - Id. positive
Nest typical deeply cupped structure of
interwoven tule blades lashed to growing tule
stems three feet above the water of small reed
swamp.
Coll. by D. R. Dickey
- D 33 - *Pipilo aberti* - A. O. U. 592 - *Molothrus a. obscurus* - A. O. U. 495a
Abert Towhee and Dwarf Cowbird - N/3 plus 1
Bard, Imperial County, California - 4/28/16
Inc. 592 - very advanced - 495a - slight
Identity positive - female shot (D289)
Nest characteristic Towhee structure of bark
strips, trash, and dead stems, lined with fine
fibers and hair and placed four feet up in mes-
quite in open thicket. Towhee incubating.
Coll. by D. R. Dickey
Broken in preparation except for cowbird egg
which was saved. As usual one egg had claw or toe check.
- D 34 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Two miles west of Potholes, Imperial County, California.
4/28/16 - inc. slight - identity positive.
Nest typical deeply cupped structure of inter-
woven tule blades lashed to growing tule stems
three feet above the water of small reed swamp.
Coll. by D. R. Dickey
- D 35 -
Flicker 1/4
2 miles west of Potholes, Imperial County, California.
4/28/16 - Inc. fresh - Male and female shot - (D287 and D288)
Both of them distinctly salmon orange cafer type.
Nest twelve feet up in dead stub of large cottonwood
tree, cavity 18" deep. Eggs visible with mirror. On
dissection of female, L. Huey thought he detected traces
of another egg broken in oviduct. Therefore a short set.
Coll. by D. R. Dickey.

April 29, 1916

Worked around camp in morning packing nests and birds for shipping.

Set trap camera near house to accustom varmints to it since a rabbit was taken last night at the spot we saw the fox and I want to get him. Put up Elf Owl taken 4/27. In to Yuma in afternoon for supplies, mail, etc. Picked up Whitney and as we crossed big drainage canal near Bard, I shot a fine male muskrat. Home late in the early gusts of our first mean night wind. Thought my bobinet mosquito tent was going to blow away in the gale.

Birds collected today were:

D 297 - Elk Owl - female - 5.50" - Coll. by L. Huey & D. R. Dickey

Birds shipped to Pasadena today included:

S Yellow Warbler - 10 males - 1 female	<u>Taken later</u>
Dwarf Cowbird - 5 males - 3 females	6 males
Sonora Redwing - 5 males -	
Abert Towhee - 7 adults - 1 juvenile	1 male - 7 males
Vermilion Flycatchers - 9 males - 2 females	1 " - 1 juvenile
Cooper Tanagers	3 females - 2 juv.
Arizona Blue Grosbeaks	7 males
Arizona Least Vireo - 1 male - 1 female	8 males

Mammals collected today were:

D 72 - Muskrat - female
Near Bard, Imperial County, California.
4/29/16
L. 20.00" - T 8.75" - H. 2.75" - E. .85" - male
Shot by D. R. Dickey as he was swimming along edge of drainage canal.

April 30, 1916

While breakfast was brewing our Kingbirds of the windmill started chattering excitedly. Laurence rushed out and found them busy driving off two male Arizona Blue Grosbeaks. One was collected, but other escaped. First time we have noted these pretty birds - Must be just coming in. Gale blowing and so much sand in the air we could do nothing

outside so put up few yesterday's skins, blew eggs, worked on Sahuaro ladder and wrote letters. Rebaited flash trap. Out west where coon tracks were so thick nothing bothered bait but here it is taken almost immediately - probably damn "gatos!". Too windy to set powder, etc., however. Things in good shape at camp now and ready for a hard day's collecting tomorrow.

Birds collected today were:

Arizona Blue Grosbeak - male - 7.00" - Coll. by L. Huey

May 1, 1916

I collected young Crissal Thrasher from nest found previously - typical ragged affair of sticks, etc. Laurence finished up Sahuaro ladder and then celebrated by going back to our colony tree found on 4/26/16. To our disgust the two fresh Flicker eggs had disappeared bodily. The Sahuaro Screech Owl had moved their young so their cavity was also empty. Quite a disappointment after our care in patching up holes after first examination. Oddly enough the Sparrow Hawks which were the only ones really bothered on the first visit were the only ones to stay by the ship. They were about and apparently contemplating another venture in the same tree. Collected Sahuaro Screech Owl and three ^{young} ~~eggs~~ plus one egg. Next went on over to Flicker stub near original Red-wing colony, but I missed female as she flew so I went on into Yuma and left Laurence and Aunt May near the Mexican with the tree house, to collect. On my return they triumphantly showed me two male Cooper Tanagers, male Sonora Yellow Warbler, etc. Laurence had collected male Lincoln Sparrow and a Brewer Sparrow (both spoiled in preparation.) Aunt May had collected Abert Towhee N/4 - first set of ~~our~~ noted - and had located goodlooking Gila hole near deserted house. Also located N/3 Vermilion Flycatcher plus one Dwarf Cowbird which Laurence finally collected after lashing tree with rope, etc. Nest was on mean small cottonwood limb thirty-five feet up. One of the Flycatcher eggs had small hole in side -

possibly a toe check but it appears so often in one of the eggs of original owners of nests Cowbirds lay in as to suggest its being an intentional act of the latter when their own egg is laid. Pair of White-wings (or Sonora Pigeon as they are more aptly called, to my notion, in the local vernacular) were cock-a-doodling at a great rate near this nest.

I collected male Mockers and found Arkansas Kingbird nest ready for eggs - in main crotch of cottonwood. On way home I collected two more male Cooper Tanagers and saw three others - quite a day for Tanagers. Raided a Redwing colony and shot seven females and one male. Saw one Yellow-head. They are not common here now. Sorry to find the Vermilion Flycatcher's nest in tree over the Mexican house had young. We misjudged them on the 20th for they must have had eggs then. Other nest of young had flown. The Flicker found on the 24 still on job in leaning burnt stub, so hope for a set from her.

Birds collected today were: Bard, Imperial County, Cal. (except D 302)

- D 299 - Sahuaro Screech Owl - (?) juv. - 4.00" - Coll. by L. Huey and D. R. Dickey.
- D 300 - " " " " " " " " " "
- D 301 - " " " " " " " " 2
- D 3 (For parent of above see spec. D342)
(See also eggs - set D36)
- D 302 - Crissal Thrasher - (?) juv. - 7.00" - Coll. by L. Huey
(Tail slipped in skinning)
(Potholes, Imp. Co., Cal.)
- D 303 - Vermilion Flycatcher - (?) juv. - 5.25" - Coll. by L. Huey
- D 304 - " " " " " " " "
- D 305 - " " female - 5.75" - " "
- D 306 (Parent of above Young)
- D 306 - Vermilion Flycatcher - Female - 5.50" - Coll. by D. R. Dickey
- D 307 - (Parent of N/3 plus 1 - D39)
- D 307 - Sonora Yellow Warbler - male - 5.50" - Coll. by L. Huey
- D 308 - Cooper Tanager - male - 8.00" - Coll. by L. Huey
- D 309 - " " " 8.25" - " "
- D 310 - " " " " " M. Canfield
- D 311 - " " " " - Coll. by D. R. Dickey
- D 312 - " " " " " "
- D 313 - Western Mockers - male - 10.50" - " "
- D 314 - Sonora Redwing - female - 8.00" - " "
- D 315 - Sonora Redwing - female - 8.00" - " "
- D 316 - " " " " " "
- D 317 - " " " 8.10" - Coll. by L. Huey
- D 318 - " " " 8.00" - " "
- D 319 - " " " " " "

D 320 - Sonora Redwing - female - 8.00" - Coll. by L. Huey
 D 321 - " " male 9.25" " "

Eggs collected today were:

- D 36 - Otus asio gilmani - A. O. U. 373i
 Sahuaro Screech Owl - 1/1 plus 3 young (D299, D300, D301)
 Bard, Imperial County, California.
 May 1, 1916 - Inc. addled - infertile - female collected - D342
 Nest an old Flicker hole eleven feet up in dead cottonwood stump.
 Coll. by L. Huey and D. R. Dickey
- D 37 - Icterus bullocki - A. O. U. 508
 Bullock Oriole - N/5
 Bard, Imperial County, California
 May 1, 1916 - Inc. fresh - identity positive
 Nest a characteristic basket of fiber and horse hair
 lined with cotton down, etc. and lashed by its rim
 and sides to the terminal drooping twigs of a pendant
 cottonwood branch twenty feet from ground. Complete
 set for found on 4/26 with two eggs.
- D 38 - Pipilo aberti - A. O. U. 592
 Abert Towhee 1/4
 Bard, Imperial County, California
 May 1, 1916 - Inc. begun - Id. positive
 Nest of bark fiber and trash - 4 feet up in arrow-weed thicket
 Coll. by M. Canfield
- D 39 - Pyrocephalus r. mexicanus - A. O. U. 471
 Molothrus a. obscurus - A. O. U. 495a
 Vermilion Flycatcher - N/3 plus 1
 Dwarf Cowbird
 Imperial County, Bard, California
 May 1, 1916 - Inc. slight - female #471 collected - D306
 Nest typical shallow cup of small twigs and gray plant
 fiber saddled on small horizontal cottonwood limb 35'
 from ground and well out from trunk - a nasty climb.
 One egg checked as seems almost invariable when set is
 accompanied by Cowbird egg.
 Coll. by L. Huey.

May 2, 1916

Griggs was in the midst of his haying this morning and as the field of alfalfa dwindled the Blue Grosbeaks began congregating in what was left and were therefore easy to see. I shot one and Aunt May two - all males. She also found Salton Sink Song Sparrow N/2 and two other nests. Song Sparrows certainly are late nesters down here. Photoed young Abert Towhee on mesquite branch.

Photo Record - Young Abert Towhee - bright a. m. sun. 1/35" at F 6.3 and F 8 - 5 x 7 sp. film.

My Vireo and Son. Yellow Warbler nests near Potholes both deserted for some reason - seems a waste of time to find nests unless complement is complete. Birds so shy and vaints, etc., so thick that in nine cases out of ten, at least, something happens to the nest or else it is deserted. Over to old Flicker stub near Bard in afternoon and missed female again as she flew. Laurence's gun too straight for me. She did not return for two hours so fear I touched her up. As she was obviously of the light yellow type without the shade of a doubt (we have seen her now about five times at fifteen feet or so,) I collected the set of five eggs.

Collected six sets Sonora Redwing from tule swamp nearby. First new-hatched young of the year noted in one nest of this colony. Aunt May found a promising Gila hole and noted pair of Anthony Green Herons haunting one group of willows as though with nesting intent. On into Bard for bread, etc., and shot female of a pair of White-winged Doves. They certainly are not common here, for the stubble-field on the edge of which this bird was taken contained about 120 Mourning Doves but no other White-wings. (I counted 43 of the former in what I judged to be one-third of the stubble acreage - and they seemed equally distributed - hence estimate.) Odd how few Mourning Dove nests we find. Saw Ground Dove on way home. Nearly always see one or two of these each day we cover any ground with the ford and almost every day hear a White-wing's conspicuous "coo". Soon as we got home I chased off down canal to autochrome a sunset - dull red aftermath for our sandstorm - canal and tules in foreground. Laurence put up twenty skins today.

Photo Record - Sunset autos - dull red - tules and canal in foreground - 16" to 30" at F. 16 - 5 x 7 - Very late after. sunset when last (30") plate made.

Birds collected today were:

- D 322 - Arizona Blue Grosbeak - male - 7.00" - D. R. Dickey
 D 323 - " " " " 7.10" - M. Canfield
 D 324 - " " " " 7.00" - L. Huey
 D 325 - " " " " " - M. Canfield
 D 326 - Abert Towhee - (?) juv. - 5.00 - L. Huey and D. R. Dickey
 D 327 - White-winged Dove - female - 11.50" - D. R. Dickey

All collected near Potholes except 6 and 7 - Bard.

Eggs collected today were:

D 40 -

Flicker - 1/5

Bard, Imperial County, California

5/2/16 - Inc. small emb. - female seen at distance of fifteen feet several times - Undoubtedly of lemon yellow type like #290.

Nest typical cavity 18" deep and 9' from the ground in dead cottonwood stump. Same stub contained nesting cavity of Sahuaro Screech Owl (D 36)

Coll. by D. R. Dickey

D 41 - *Agelaius p. sonoriensis* - A. O. U. 498a

Sonora Redwing - N/4

Bard, Imperial County, California

5/2/16 - Inc. slight - Id. positive

Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems 3' above the water of small reed swamp.

Coll. by D. R. Dickey.

D 42 - *Agelaius p. sonoriensis* - A. O. U. 498a

Sonora Redwing - 1/3

Bard, Imperial County, California

5/2/16 - Inc. small embs. - Id. positive

Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems 3' above the water of small reed swamp.

Coll. by D. R. Dickey

D 43 - *Agelaius p. sonoriensis* - A. O. U. 498a

Sonora Redwing - N/4

Bard, Imperial County, California

5/2/16 - Inc. small embs. - Id. positive

Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems 3' above the water of small reed swamp.

Coll. by D. R. Dickey

D 44 - *Agelaius p. sonoriensis* - A. O. U. 498a

Sonora Redwing - 1/3 - Bard, Imperial County, California.

5/2/16 - Inc. very adv. - Id. positive - BROKEN

Nest typical deeply cupped structure of interwoven tule blades lashed to growing tule stems 3' above water of small reed swamp.

Set Broken. Coll. by D. R. Dickey.

- D 45 - *Agelaius p. sonoriensis* - A. O. U. 498a
 Sonora Redwing - N/4
 Bard, Imperial County, California
 5/2/16 - Inc. small embs. - Id. positive
 Nest typical deeply cupped structure of inter-
 woven tule blades lashed to growing tule stems
 3' above the water of small reed swamp.
 Coll. by D. R. Dickey
- D 46 - *Agelaius p. sonoriensis* - A. O. U. 498a
 Sonora Redwing - 1/3
 Bard, Imperial County, California
 5/2/16 - Inc. small embs. - Id. positive
 Nest typical deeply cupped structure of inter-
 woven tule blades lashed to growing tule stems
 3' above the water of small reed swamp.

May 3, 1916

Laurence still busy preparing skins so I went down alone into the river bottom. Found no nests but collected adult male and fine immature male (bird of 1915 season?) Cooper Tanagers. Also some Son. Yellow Warblers, etc. Nearly had serious catastrophe. Laid birds on ground while I gave chase to female Cooper Tanager and got back three minutes later to see the second Yellow Warbler disappearing down a damn cat's maw. Couldn't even get a shot at it. Oh, for Terry! If the blooming thing had got my Cooper Tanagers, I'd certainly have vowed a mighty vow then and there.

Shaved and drove into Yuma in afternoon to see about Aunt May's bank affairs. Set powder, etc., of "trap camera."

Birds collected today: Potholes, Imperial County, California.

- D 328 - Cooper Tanager - male (im. 1915 bird?) - 8.00" - Coll. D. R. D.
 D 329 - " " " - 8.00" - D. R. Dickey
 D 330 - Son. Yellow Warbler - 4.75" - male - D. R. Dickey
 D 331 - " " " " " - L. Huey
 D 332 - " " " 5.00 - " "
 D 333 - " " " " " "
 D 334 - " " " " " "

Eggs collected today:

- D 47 - *Pipilo aberti* - A. O. U. 592
 Abert Towhee - N/3
 Potholes, Imperial County, California
 5/3/16 - Inc. slight - Id. positive
 Coll. by M. Canfield
 Nest - collected - situated seven feet up
 in willow tree in willow grove of the Colo-
 rado River Bottom.

May 4, 1916

Our Kingbirds in the windmill have their first egg this morn-

ing. Have been building since first day I got here, quite proud of that egg to judge by the way they are driving other birds around.

Found trap camera sprung this morning. Thought we heard it as we sat at supper last night.

Photo Record - Trap Camera - 4X Seneca - 1 oz. Vict. Norm. 1/20" at U. S. 4 - Goerz "Dagor" - 4X stand. Ortho. Rabbit bait - brush background - single trip wire laid across rabbit. - Fine plate of my fox - quartering on - seizing rabbit.

Laurence and Aunt May stayed in camp to blow eggs, etc., while I went west to pick up our nests located on Easter (4/23/16) on far side of canal near hog-ranch bridge - Took Griggs part way and, as a result of detour for him, got stuck in sand and had to get horse to help pull out. Found Abert Towhee 1/3 four feet up in tumbleweed while breaking brush to get car out, so trouble not entirely in vain. Sun pretty hot so it was disappointing after my hike from bridge back to find the Vireo, Towhee and Thrasher nests had all been either deserted or destroyed. Records of nests found building now shows that less than one in ten is completed to the point of a full set. Mortality must be terrific. Went on in to Yuma for cash and Aunt May's wire, etc. Saw one Cooper Tanager on way but too shy to get. Took strawberries and cream out for lunch! In late afternoon when most of the sets were blown, Laurence and Aunt May went to look at Song Sparrow N/2 found on 5/2/16. Disgusted to find her incubating short set of two eggs. Laurence collected Arizona Blue Grosbeak and Lazuli Bunting and also a Townsend Solitaire (female). Surprise to me to get him here. He also thought he saw a male Rose-breasted Grosbeak but did not succeed in collecting it. Flew within ten feet of him. He also got a large female blackbird (Brewer's ???). Aunt May also took Abert 1/3 (broken). I shot rabbits and doves for bait and reset trap camera. Noted my first Round-tailed Ground

Squirrel this morning - over on edge of desert - not common - none

(?) near settlement.

Birds collected today were: All taken at Potholes except D342.

D 335 - Blackbird (Brewer ???) - female - 925" - Coll. by L. Huey

D 336 - Arizona Blue Grosbeak - male - 7.00" - Coll. by L. Huey

D 337 - Townsend Solitaire - female - 8.75" - " " "

(No signs of breeding - apparently feeding on mistletoe berry)

D 338 - Lazuli Bunting - male - 4.75" - Coll. by L. Huey

D 339 - Arizona Blue Grosbeak - male - 7.00" - L. Huey

D 340 - " " " " " "

D 341 - Abert Towhee - male - 8.00" - L. Huey

D 342 - Sahuaro Screech Owl - female - 8.50" - L. Huey and D. R. Dickey

(Parent of young D299 to 301 and of egg #D36. Taken at Bard, Imp. Co., Cal. and kept alive since 5/1/16).

Eggs collected today were:

D 48 - Pipilo aberti - A. O. U. 592

Abert Towhee - 1/3

Five miles west of Potholes, Imperial County, California

5/4/16 - Inc. slight - Id. positive

Coll. by D. R. Dickey

Nest a ragged affair of the more trashy type.

Composed of bark shreds, weed stems, etc., and

placed four feet from ground in dense "tumble weed" thicket.

D 49 - Pipilo aberti - A. O. U. 592

Abert Towhee - 1/3

BROKEN

2 miles west of Potholes, Imperial County, California.

5/4/16 - Inc. adv. - Id. positive

Coll. by M. Canfield

Nest trashy affair four feet up in mesquite near camp.

D 50 - Melospiza m. saltonis - A. O. U. 581a

Salton Sink Song Sparrow - N/2

2 miles west of Potholes, Imperial County, California

5/4/16 - Inc. slight - Bird inc.

Coll. by M. Canfield

Nest collected - situated in midst of tangle of dead limbs and twigs lodged against side of willow tree four feet from the ground. Set complete for found first on 5/2/16 and had two eggs then.

May 5, 1916

Flash trap sprung again - late in night - claw marks that look like dog or coyote showed the speed with which he had "dug out" of there.

Photo Record - Trap Camera - Seneca - 1 oz. Victor Normal - 1/200"

- at F.8 - Goerz "Dagor" - 4/5 Stand Ortho. Dove bait - brush back -

May 5 -
double trip wire.

Damn dog - hind end to - beautiful thing!

Wrote, shaved and set up Nesbit trap camera one-half mile west of camp in morning. Laurence busy with skins.

In afternoon we made a big party of it - collecting fourteen sets - six birds and two muskrats. First we went back to our "picnic grove" Redwing colony and collected eight sets there. The Gilas had left their hole in one of the willows of the grove without laying their set. English Sparrows in hole above had large young. Laurence must have overlooked the set on 4/27/16. And to our delight, the same cavity from which we took an Elf Owl on the 27 contained another of the birds. On dissection this bird proved to be another female with eggs ready for deposition shortly. Can it be that the male we did not get on either occasion has found another mate and induced her to take the same cavity. If so he did us a good turn. Went over to Flicker hole in dead cottonwood in alfalfa patch next but found she had five large young. Female parent distinctly seen to be of light lemon yellow type. Bullock Oriole N/5 and Arkansas Kingbird taken from nearby tree. Next examined ^{Gila woodpecker} hole in willow near house of plump and cordial owner of the land. Found they had only three eggs but as incubation in each was obvious set was collected. Hard to get used to short sets one must expect on the desert.

On up to my Vireo found on 27. Either because they had seen me or for some reason they had moved their nest to another mesquite clump thirty feet away and then just as they finished nest Cowbird (Dwarf, of course) had preempted it. When I found it today there were two Cowbird eggs and the Vireos had again moved on - still without laying an egg. In east Cowbirds seem to have sense enough to wait till the owners' set is at least started before laying, but here the Cowbirds

May 5

are so thick and the race for depositories so hot when once they start laying that they lay in any new nest whether with other eggs or empty. Result is the other birds often abandon their own fresh nests because of this precipitate and premature laying of the interlopers. There are such myriads about, however, that the chances are ten to one the Cowbird finds the new nest, too. Wonder of it is how any legitimate young are raised after May 1 - and I doubt if many are. Only saving feature is late breeding date of the Cowbirds (May 1 on) which allows most birds to raise one brood before they become a menace. Interesting to see how thoroughly the small birds appreciate this menace. Another pair of Arizona Least Vireos attracted Aunt May's attention to their nest (with one Cowbird egg - none of their own) by their violent attack on a female Cowbird that was prowling near. On two other occasions today I have seen displayed this wholesome protesting fear. The Vermilion Flycatcher taken later in the afternoon was another case in point. She was off the nest for a moment as we watched her, but the second a Cowbird appeared near her tree and nest, she darted quickly to it and settled over her eggs. She discriminated justly against these outcasts, for a Bullock Oriole had a nest in same tree and was tolerated with equanimity if not friendliness.

Aunt May found another set of Abert Towhee 1/4, also Vermilion Flycatcher N/2 plus 1 Cowbird.

Only the Redwings seem comparatively immune from these damn pariahs of birddom. Odd, too, considering friendly flocking and feeding together of the two species. Last set of Vermilion left to insure completion. Collected another Vermilion Flycatcher 1/3. Also collected my Flicker set spotted on the 24th in burned stub, now had five nice (?) eggs, except for nest check in one egg. I shot two muskrats from drainage ditches on my way home. Rushed down dike a way to auto-chrome the corking fine sunset. Reset flash traps after dark. Mosqui-

toes - Wow!

Photo Record - Sunset autos: - Canal - tules, etc. - good color.
16" at 16 - well after sunset - 5 x 7; 25" at 16 - just before fading;
30" at 16 - just before fading; 30" at 16 - just before fading - slide.

Birds collected today were: All at Bard, Imp. Co., Cal.

- D 343 - Elf Owl - female - 5.75" - D. R. Dickey and L. Huey.
(Same hole as #d297 - Eggs well developed in ovaries.)
D 344 - Vermilion Flycatcher - female - 5.50" - D. R. Dickey
D 345 - Sonora Redwing - female - 8.00" - L. Huey
D 346 - Sonora Redwing - female - 8.00" - L. Huey
D 347 - Sonora Redwing - male - 9.00" - D. R. Dickey
D 348 - White-winged Dove - male - 12.00" - D. R. Dickey

Eggs collected today were:

- D 51 - Agelaius p. sonoriensis - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California
5/5/16 - Inc. fresh - Id. positive BROKEN
Coll. by L. Huey
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.
Broken in blowing.
- D 52 - Agelaius p. sonoriensis - A. O. U. 498a
Sonora Redwing N/4
5/5/16 - Inc. slight - Id. positive
Coll. by L. Huey
Nest typical deeply cupped structure of interwoven
Tule blades lashed to growing tule stems three feet
Above the water of small reed swamp.
- D 53 - Agelaius p. sonoriensis - A. O. U. 498a
Sonora Redwing N/4
5/5/16 - Inc. small embs. - Id. positive
Coll. by L. Huey
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small tule swamp.
- D 54 - Agelaius p. sonoriensis - A. O. U. 498a
Sonora Redwing N/4
5/5/16 - Inc. small embs. - Id. positive
Coll. by L. Huey
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems 3' above water
of small reed swamp.
- D 55 - Agelaius p. sonoriensis - A. O. U. 498a - Sonora Redwing - N/4
Bard, Imperial County, California.
5/5/16 - Inc. fairly heavy - Id. positive - Coll. by L. Huey.
Nest typical deeply cupped structure of interwoven tule blades
lashed to growing tule stems three feet above water of reed swamp.

- D 56 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California
5/5/16 - Inc. slight - Id. positive
Coll. by D. R. Dickey
Nest typical deeply cupped structure of interwoven
tule blades - profusely lined with horsehair -
lashed to growing tule stems three feet above the
water of small reed swamp.
- D 57 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California.
5/5/16 - Inc. advanced - Id. positive
Coll. by D. R. Dickey
Nest typical deeply cupped structure of interwoven
Tule blades lashed to growing tule stems three feet
above the water of small reed swamp.
- D 58 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
Bard, Imperial County, California
5/5/16 - Inc. large emb. - Id. positive BROKEN
Coll. by D. R. Dickey
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.
Broken.
- D 59 - *Icterus bullocki* - A. O. U. 508
Bullock Oriole BROKEN NEST ONLY
Bard, Imperial County, California
5/5/16 - Inc. adv. - Id. positive
Coll. by D. R. Dickey and L. Huey
Nest an olive green basket of slender grasses picked and
woven while green - lined with cottonwood down and half a
dozen horse hairs. Lashed by rim and sides to pendant stems
of a mistletoe clump 20' up in a cottonwood tree. Kingbird
and Flicker nests in same tree. Female very courageous.
This green grass type (like *spurius*' nests in East) much rarer
than hair and string affairs.
Broken.
- D 60 - *Tyrannus verticalis* - A. O. U. 447
Western Kingbird - N/4
Bard, Imperial County, California
5/5/16 - Inc. slight - Id. positive
Nest of weed stems - string - cottonwood down, etc.
Placed on top of good-sized cottonwood limb among
upright shoots and fifteen feet up.
Coll. by L. Huey and D. R. Dickey
- D 61 - *Centurus u. uropygialis* - A. O. U. 411
Gila Woodpecker - 1/3 - Bard, Imperial Co., Cal. - 5/5/16
Inc. slight - bird flushed. Nesting cavity about 15' up in
dead limb of willow tree over house. Cavity only a foot deep.
Set complete in spite of small number of eggs - for inc. well
started. Coll. by D. R. Dickey.

D 62 - *Pipilo aberti* - A. O. U. 592

Abert Towhee - 1/4

Bard, Imperial County, California.

5/5/16 - Inc. fresh - bird flushed.

Nest a trashy affair of bark strips, etc.,
nine feet from ground in fork of limb and
main bole of big cottonwood tree.

Collected by M. Canfield.

D 63 - *Pyrocephalus r. mexicanus* - A. O. U. 471

Vermilion Flycatcher 1/3

Bard, Imperial County, California

5/5/16 - Inc. adv. - female incubating

Nest of twigs, etc., and gray plant fiber

saddled on large limb of cottonwood tree

thirty feet from the ground

Coll. by M. Canfield

D 64 -

Flicker 1/5

1 egg broken in nest

Bard, Imperial County, California

5/5/16 - Inc. adv. - female inc.

Nesting cavity the one found 4/24/16 in leaning

burnt cottonwood stub - Hollow about 18" deep.

Female seen several times very distinctly - was

undoubtedly the light yellow type. Male seen only

on first day was apparently the salmon orange

cafer type

1 egg broken in nest

Coll. by D. R. Dickey

Mammals collected today were:

D 73 -

Musk Rat - Female

Near Bard, Imperial County, California

5/5/16 -

L. 18.25" - T. 7.75" - HF. 2.65" - E. .85

Shot by D. R. Dickey as it was feeding in
water on edge of drainage canal.

D 74 -

Musk Rat - Female

Near Bard, Imperial County, California - 5/5/16

L. 19.75" - T. 8.40" - HF 2.65" - E. .80

Shot as it was swimming along drainage ditch
in late afternoon

Coll. by D. R. Dickey

May 6, 1925

Found the Nesbit Flash "trap" sprung this morning. While Laurence was busy with skins Aunt May and I went down to look at her Vireo N/2 plus 1 Cowbird. Brush too thick to collect parent so came back for aux. Her Abert Towhee nest near cotton rat traps (which I reset) had been robbed of its single egg before completion of set.

A pretty Bullock Oriole in a mesquite nearby seemed ready for eggs. Mourning Dove flushed from her two fresh eggs but was not disturbed further. I next scouted across canal alone looking for

likely trap camera "sets" in the desert gulches on that side. Missed three running shots at a "jack" with the "Hi-Power" at 250 - 300 yards. Good fun. Found Abert Towhee N/3 on way home and collected the eggs. Then to camp and wrote notes, etc., Aunt May had been down in river bottom but nothing much doing. She saw one Cooper Tanager.

In the afternoon I collected the Arizona Least Vireo N/2 plus 1 Cowbird (looked at this morning) while Laurence auxed the female parent. Down Bard way Laurence spotted a muskrat as we were crossing drainage canal. I slipped out of car and to my surprise found it to be a male and female copulating - I wonder whether that is for first litter of the spring or the second. They were in edge of water where it was only three or four inches deep. Killed both with one shot. - Saw Sora Rail - Later on Laurence Huey shot another muskrat and relieved the monotony by quite an altercation with the owner of some nearby ducks which he thought were suffering instead of the muskrat. The Gila hole in willow stub at deserted shack below the Mexican's Tree House proved a delusion - Empty! Western Kingbird nest we had found building on 5/1/16 had had interesting history - evidently usurped by Mourning Dove which had laid two eggs before the nest was really completed. Kingbirds (probably) in resultant wrath had picked open the side of one of the dove eggs and then both families had deserted the wreck. Collected Vermilion Flycatcher N/2 plus 1 from tree on place of a friend of the Muskrat Dutchman's, so we had a bit more hot air, but got our nest. One egg of this set also checked as though by claw or bill or Cowbird - seems an almost universal custom. On into Yuma for baling wire and a shave for Laurence.

Birds collected today were:

D 349 - Arizona Least Vireo - male - 5.00" - Coll. by M. Canfield - Potholes
 D 350 - " " " female - 4.75" - Coll. by L. Huey - "
 (Parent of set D 75 - D 77)

Eggs collected today were:

- D 65 - *Pipilo aberti* - A. O. U. 592
 Abert Towhee - 1/3
 Potholes, Imperial County, California
 5/6/16 - Fairly adv. - Id. positive
 Nest a striking ragged affair of bark shreds - stems, etc., lined with horse hair, 5' up in mesquite.
 Coll. by D. R. Dickey.
- D 66 - *Vireo belli arizonae* - A. O. U. 653a - part
Molothrus a. obscurus - A. O. U. 495a
 Arizona Least Vireo - N/2 plus 1
 Dwarf Cowbird
 Potholes, Imperial County, California
 5/5/16 - Inc. slight - Female Vireo inc. and coll. - D 350
 Coll. by D. R. Dickey
 Nest typical basket of gray plant fiber closely woven together and lashed by rim to dead twig three feet from ground and in the heart of dense mesquite and tumble-weed thicket. Almost, if not quite, unique in our experience with Cowbirds this year, since no eggs were picked or clawed. Were one or two removed bodily, perhaps? Found by M. Canfield couple of days ago so do not doubt as to completion of set.
- D 67 - *Pyrocephalus r. mexicanus* - A. O. U. 471
Molothrus a. obscurus - A. O. U. 495a
 Vermilion Flycatcher - N/2 plus 1
 Dwarf Cowbird
 Bard, Imperial County, California
 5/6/16 - Inc. fresh - female #471 incubating.
 Nest characteristic shallow cup with foundation of a few small twigs, etc. and walls of matted gray plant fiber, etc., saddled on cottonwood limb three feet from main trunk and ten feet from ground. Found by M. Canfield on 5/5/16 with same complement of eggs so set complete. 1 egg, toe or bill checked as usual,
 Coll. by L. Huey and D. R. Dickey

Mammals collected today were:

- D 75 -
 Musk Rat Female
 Bard, Imperial County, California
 5/6/1916
 Coll. by D. R. Dickey
 L. 17.40" - T. 7.40" - H.F. 2.60" - E. .80"
 Shot in shallow water near shore of drainage canal as it was copulating with D 76 - Remember to look up any data on breeding season to see if this is evidence of two litters a year.
- D 76 -
 Musk Rat Male Bard, Imperial Co., Cal - 5/6/16
 Coll. by D. R. Dickey.
 L. 18.50" - T. 8.25" - H.F. 2.70" - E. .85.
 Shot in shallow water near shore of drainage canal as it was copulating with D 75 - see above

D 77 -

Musk Rat Female
Bard, Imperial County, California - 5/6/16
Coll. by L. Huey
L. 19.25" - T. 8.25" - H. F. 2.75" - E. .85"
Shot as it was swimming drainage canal.

May 7, 19~~25~~ 6
Sunday

Kingbird set of four in our windmill is completed this morning and bird is proudly incubating.

Something had come back to Nesbit camera (which I had failed to reset) and taken rest of bait. Nothing near Seneca Trap Camera till ten this morning when a neighbor, or else his darn stock or dogs, blundered into it. We heard the roar at camp and when I got there here sat neighbor on his horse - still white and shaky-looking - said he "hadn't heard or seen anything" (though he was still not fifty feet from it.) Verily, the truth dwelleth not in humans. Spose he thought he had started a new Mexican revolution and wanted to disclaim responsibility. (About as successful as Germany in making anyone believe him).

Photoed Vermilion Flycatcher N/2 plus 1 Cowbird - not in situ.

Photo Record - (Vermilion Flycatcher N/2 plus 1
(Dwarf Cowbird

not in situ - indoors - 10:30 a. m. - Act. 1/16 tint equals 30" - 1 Exp. 40" - 2 of 1' and 1 of 1'30" at F. 22. East speed film 5X.

Wrote up notes, etc., and eight letters while Laurence finished skinning muskrats.

In afternoon took bait across canal to try baiting coyotes in the mouths of the dry desert gulches over there. Then looked at Bullock Oriole nest near cotton rat colony and found it contained 1 fresh egg. Cactus Wren nest ready for eggs - traps I reset yesterday contained one juvenile Cotton Rat and one Peromyscus. The former do not seem to care much for bait - catch them with unbaited traps in runways of colony in

thick grass. The *Peromyscus* is first one noted on trip in spite of Laurence's attempts to get one before I came. Said he tried everywhere (except among rocks out on desert) but without success - . . . seem either rare or very local. Unfortunately flesh-eating beetles had ruined both specimens. Climbed Kingbird nest near Whitney's but it contained only two fresh eggs. I collected 3N/4 Sonora Redwing from nearby tule swamp but all except one were too advanced to blow. On into Bard to mail letters. Wounded Muskrat from the main bridge of the city (?) of Bard, but failed to get him. On way home saw and heard at least half a dozen Cooper Tanagers, but they proved too shy for us. My Vireo nest which had the two Cowbird eggs on the 5th contained only one egg yesterday (6th). Today that, too, was gone. Vireos not heard near the nest so doubt if they have thrown the eggs out themselves. Nest is on too slender a twig for a snake to negotiate. I would have expected mouse to leave shells if he had sucked it - not work of Road-runner, for no perch from which to fish egg out without breaking nest down. Certainly not a varmint's work and there are neither Jays nor Wren-tits here nor have we seen or heard Cuckoos - quite a puzzler. I left nest to see if there would be more chapters to the tale of this Vireo nest. Birds certainly are hard put to it by the Cowbirds. As we drove home they rose from a field near a hog pen in a dense mass - hundreds and hundreds and hundreds of birds. Owner of this ranch showed Laurence two-thirds of a pail full of the pests which he said he had got with a couple of pot shots in his corral. He keeps after them, but still they come. Write a drool some day on "The Cowbird Menace of the Yuma Valley."

No Birds today - -

No ~~Mammals~~ today - -

Eggs collected today were:

- D 68 - *Agelaius p. sonoriensis* - A. O. U. 498a
Sonora Redwing - N/4
2 miles west of Potholes, Imperial County, California
5/7/1916 - Inc, 2 eggs adv. - 2 infertile - Id. positive
Coll. by D. R. Dickey
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.

May 8, 1916

Monday

Traps cameras not touched. Bait across canal not touched.

Saw my first Raven flying over with our windmill Kingbirds diving valiantly at him and actually alighting on his back. Laurence and Aunt May blew all eggs to date. I wrote up notes to date. Killed another King (?) snake. They seem quite common and are nearly black - the white bands very narrow.

White-winged Doves getting much commoner than they have been.

Laurence and Aunt May went nesting down to Picnic Grove. Collected English Sparrow 1/5 and found the Vireo nest was empty (found on 5th with 1 Cowbird egg and nothing else.) Laurence found Abert Towhee 1/4. Song Sparrow (S.S.) found on 5/6/16 was collected today. Contained three fresh eggs and one cowbird. As in all other cases where Cowbird egg was present, one of S. S. eggs was broken. Must be intentional work of Cowbird. No other explanation seems possible in view of mass of cases we have seen.

Birds collected today (Bard, Imperial County, California):

- D 351 - Lucy Warbler - male - 4.50" - Coll. by L. Huey
D 352 - Cooper Tanager - male - 8.00" - " "

Eggs collected today:

- D 69 - *Melospiza m. saltonis* - A. O. U. 581a
Molothrus ater obscurus - 495a
Salton Sink Song Sparrow - N/3 plus 1
Dwarf Cowbird
Bear Bard, Imperial County, California
Coll. by L. Huey and M. Canfield.
Nest of leaves and grasses, etc. 16" from ground in green weed in dense weed patch.

D 70 - *Passer domesticus*

English Sparrow - 1/5

Near Bard, Imperial County, California

5/8/16 - Inc. slight - Full set for found on 5th with 3 eggs.

Id. positive.

Nest in old Gila Woodpecker hole in dead limb of cottonwood twenty-five feet above ground. Nest a mass of feathers. Found on 27th first by D. R. D. Coll. by L. Huey.

D 71 - *Pipilo aberti* - A. O. U. 592

Abert Towhee

BROKEN

Near Bard, Imperial County, California.

5/8/16 - Inc. piped - Id. pos.

Nest of bark strips, leaves, paper, rags and trash - situated eight feet from ground in the dead tangle of twigs of a broken willow limb. Collected by L. Huey.

May 9, 1916

Tuesday

Neither camera touched. Both piles of bait over on desert side of canal put out on 7th were completely cleaned up by coyotes. Their tracks thick in vicinity so I took Seneca over and set with rabbit bait - creosote background. Went on up to top of the lava mountain - view fine - Picacho, Choe. Hills, Carlos Muchachos, Pilot Nob, Yuma, Squaw Peak, the Fortunas and last the bad lands about Castle Dome and the green willow-fringed snake of the Colorado at my feet. Pair of Night Hawks (Texan) on extreme summit and apparently from their actions on their chosen nesting ground but no eggs yet (so far as I could tell.) As I descended dozens of hummers were noted about the blossoms of the ironwood - all were apparently Black-chins. The profusion of pinkish lavender blossoms on the rather bare branches of the ironwood is a relief at this season when all the other vegetation (except the creosote or greasewood) is past blooming. The creosote has its balls of cotton as big as the end of one's little finger, as decoration. Found what was without doubt a hatched Poor-will egg beside little bush in arid head of one of the desert gulches. Must have been an unusually early bird, however, for females collected two weeks ago still had ovaries only partly developed for the most part. My Vireo nest at Picnic Grove

collected - empty. I went on into Yuma while Laurence hunted and put up skins.

Birds collected today were: (At Potholes)

D 353	-	Cooper Tanager	-	male	-	8.00"	-	Coll. by L. Huey
D 354	-	"	"	"	"	"	"	"
D 355	-	"	"	female	-	"	"	"
D 356	-	"	"	"	"	"	"	M. Canfield
D 357	-	Sonora Yellow Warbler	-	female	-	4.50"	-	Coll. by L. Huey
D 358	-	"	"	"	"	"	"	"
D 359	-	"	"	"	"	"	"	"
D 360	-	"	"	"	"	"	"	"
D 361	-	Arizona Least Vireo	-	male	-	5.00"	"	"
D 362	-	Arizona Blue Grosbeak	-	male	-	7.00"	"	"
D 363	-	"	"	"	"	"	"	"
D 364	-	"	"	"	"	"	"	"

The following two birds collected at Bard:

D 365	-	Cooper Tanager	-	female	-	8.00"	-	Coll. by D. R. Dickey
D 366	-	"	"	male	"	"	"	"

Eggs collected today were:

D 72 - Vireo belli arizonae - A. O. U. 633a part NEST ONLY
 Arizona Least Vireo - Nest Only
 Near Bard, Imperial County, California
 5/9/16 - No eggs - Birds seen building
 Coll. by D. R. Dickey
 Nest a particularly handsome basket lashed by its brim to forked twig of mesquite. This is the nest of the pair of birds I found building on the 27th. At this time both Vireos were about. Either from seeing me or for some other cause they had moved nest to another mesquite clump thirty feet away. Must have rushed work for by the 5th it was nearly if not quite completed and had been preempted by Cowbird (Dwarf) which had laid two eggs. No eggs of Vireos and they had deserted again. On the 6th nest contained only one egg. No trace of other in or under nest. On 7th nest empty - what next? On 9th things unchanged - deserted and empty so collected. Interesting first because it shows the apparently general method by which these Vireos meet the Cowbird menace when the Cowbird egg is laid before any of their own. Second, it stimulates speculation as to end of Cowbird eggs. (See notes for 5/7/16)

May 10, 1916

Wednesday

Found the Nesbit trap camera sprung down in mesquite patch near camp. Both wild and tame gato tracks in trail so suppose my luck to have latter get there first. Seneca across canal not touched but coyotes had sat on haunches near it and looked longingly - Time enough

yet, old scouts!

Photo Record - Nesbit Trap - Near camp - small rabbit bait - mesquite background. 1 oz. Victor Normal Flash - 1/200" at F. 4. 4 x 5 Standard Orthonon. (Wild and tame cat tracks in road near.)

Fine big Wild Cat with bait in mouth and every hair and spot showing but alas, so big his hind quarters not on plate. Ah! the photographic heartaches of a wild game photographer - not the least is this plate!

~~Hugh~~ Black came for us about 7:00 with his team and a double wagon and we loaded in our ladder and junk and started for the Senator Mine via Potholes. It was interesting to see where some of the gulches had been completely turned over beside road by shallow diggings of itinerant prospectors and Mexicans. On way the road passes the Sahuaro patch and just before we got there we jumped a fine big fox dragging off a good-sized jack rabbit. Had the "Hi-Power" but couldn't get a shot. The Sahuaros here are a poor excuse after Arizona but they are all we have in California - a limited growth a mile or so in extent - ^{Hardly} any of them are branched - mostly short straight stubs. A good many holes but thorough canvass of whole patch netted us only an incomplete set of Sparrow Hawk (left), ~~the same~~ of Ash-throat - 2 nests of Flickers both with young. In one case the parent was straight yellow type and in other just as distinctly salmon red like cafer. Good close views of both these birds but in each case only one parent was seen. These were absolutely all the Flickers in the patch. Only one Elf Owl in the whole grove - a female incubating three pipped eggs. One Sahuaro Screech Owl had two well-feathered young. In the nest, besides the female parent and young, were the half-devoured bodies of 3 Dipodomys and 1 Peromyscus (large) and the dried tails of dozens of Dipodomys of earlier killing. Another Sahuaro Screech Owl had fine

fresh sets of three eggs which we collected near the Sahuaros. I took set of Ash-throats from hole in an ironwood eight feet from ground. On the whole, it was exceedingly disappointing; far more Elf Owls and Mearns Flickers.

After tying up the harness with baling wire, which Hugh quaintly termed "Mormon glue" we pushed on to "Senator Mine". This was quite a mushroom city twenty-five years ago but is now no more than a pile of rusting "stamp" and rotting cyanide boxes and rockers and a couple of caved-in adobe stores, etc., on an arid hill top. At one time they had six hundred foot levels opened up but now all but the 100' and 200' levels are filled with surface water and even the 200' level is foul of air. Worked the hundred foot level very carefully for bats, crawling out each gallery to its cave-like end - hoping meantime that the wood of the timbering and ladders, etc., had not rotted in the interval since their laying. Laurence on his first visit must have found the bats in migration for there were now absolutely none of the large, narrow-eared fellows, such as he found clinging singly to the tunnel walls. The bats were separated into distinct breeding colonies composed entirely of females of one species. In one gallery there were perhaps seventy-five female Leaf-nosed Bats. To be sure of the species and certain there were no others perhaps twenty were collected and all were females of this species. In all cases they were carrying a single large foetus.

At the other end of the mine another colony of females of a smaller species () occupied a large cave. They numbered several hundred - of thirty or more collected all were the same. One juvenile lay at my feet when we came to pick up the specimens so doubtless of this species. Whether it could fly or was dislodged in the fracas I could not tell but think the former for I remember killing one small bat with the paddle in the fracas but nothing of the sort (like hesperis)

showed up when we gathered them in so it was doubtless this youngster. Most of these females also carried a single foetus, in most cases almost fully developed. A single male apparently of this species was collected in another side gallery, all by his lonely. Only gentleman collected the whole day.

Yellow Warblers distinctly darker than sonorana common in dry washes.

Birds collected today: (At the Sahuaro Patch three miles or so up river from Potholes, Imperial Co., Cal.)

- D 367 - Sahuaro Screech Owl - (?) juv. - 6.00" - Coll. by D. R. Dickey
 D 368 - " " " " " " " " " " " "
 D 369 - Yellow Warbler (Spec.?) - male - 5.00" - Coll. by L. Huey
 D 370 - " " " " " " " " " " "
 D 371 - Sahuaro Screech Owl - female - 9.25" - Coll. by D. R. D. & L. Huey
 (Inc. N/3 fresh eggs - Set D 73)
 D 372 - Sahuaro Screech Owl - female - 9.00" - Coll. by D. R. Dickey
 (In nest with 2 young - D367 and 8)
 Nest also contained half-eaten bodies of 3 Dipodomys and 1 Peromyscus.

Eggs collected today were:

- D 73 - Otus asio gilmani - A. O. U. 3731
 Sahuaro Screech Owl - 1/3
 Sahuaro Grove above Potholes, Imperial County, California
 5/10/16 - Inc. slight - female collected - D371
 Coll. by L. Huey and D. R. Dickey
 Nest an old Flicker cavity about fifteen feet from ground in a Sahuaro.
 Full set for ovaries of female were examined.
- D 74 - Myiarchus c. cinerascens - A. O. U. 454
 Ash-throated Flycatcher - 1/4
 Sahuaro Grove near Potholes, Imperial County, California
 5/10/16 - Inc. fresh - Bird inc.
 Coll. by D. R. Dickey
 Nest an old cavity excavated in an ironwood shell by cactus woodpeckers. The core of the tree was rotten (very unusual with these trees) but how the woodpeckers had even cut through the thin outer shell was a mystery.

Mammals collected today were:

D 78 -

Bat (?) juv.

Senator Mine, near Potholes, California - 5/10/16 - Coll. D. R. D.
 L 2.00", T. .65 - H.F. .25 - E. .25 - Ext. 4.50".
 Taken in large colony of several hundred bats of species of D 80 etc., in one of side galleries on 100 ft. level of the mine. All in this colony proved breeding females with 1 foetus each except for this one juvenile.

D 79 -

Calif. Leaf-nosed Bat - Female

"Senator Mine," near Potholes, Imp. Co., Cal.

5/10/16 - female - 1 large fetus

L. 3.25" - R. 1.20" - Free T. .20 - H.F. .40 - E. 1.15" - Ext. 13.00"

Coll. by D. R. Dickey

One of a colony of seventy-five or so breeding females in one of galleries of the 100 foot level of the mine. All of colony apparently same species.

D 80 -

Bat - Female

"Senator Mine," near Potholes, Imp. Co., Cal.

5/10/16 - female - 1 large fetus

L. 3.40" - T. 1.55" - H.F. .25 - E. .50 - Ext. 9.60"

Coll. by D. R. Dickey

One of another colony of several hundred of this species in another gallery of same level - all females, also, and all of this same species so far as we could tell by collecting thirty or so. One juvenile noted.

D 81 -

Bat - female - 1 large fetus

"Senator Mine," near Potholes, Imp. Co., Cal.

5/10/16

L. 3.25" - T. 1.40" - H.F. .30 - E. .40 - Ext. 9.10"

Coll. by D. R. Dickey

D 82 -

Bat - female - 1 large fetus

"Senator Mine," near Potholes, Imp. Co., Cal.

5/10/16

L. 3.30" - T. 1.35" - H.F. .25 - E. .40 - Ext. 8.75

Collected by D. R. Dickey

D 83 -

Bat - female - 1 large fetus

"Senator Mine," near Potholes, Imp. Co., Cal.

5/10/16

L. 3.10" - T. 1.35" - H.F. .27 - E. .40 - Ext. 9.25"

Coll. by D. R. Dickey

D 84 -

California Leaf-nosed Bat - female - 1 large fetus

"Senator Mine," near Potholes, Imp. Co., Cal.

5/10/16

L. 3.75" - T. 1.50" - Free Tail .35 - H.F. .30 - E. 1.20 - Ext. 13.10

Coll. by D. R. Dickey

One of a colony of 75 or so breeding females in one of galleries of the 100' level of the mine. All of colony apparently same species.

D 85 -

Bat - Female - 1 large fetus

"Senator Mine," Potholes, Imp. Co., Cal.

L. 3.25" - T. 1.50" - H.F. .25 - E. .40 - Ext. 9.10 - Coll. by D.R.D.

One of a colony of several hundred of this species in a gallery of the 100' level of the mine - all females also and all of this same species so far as we could tell by collecting thirty or so. Same as D80, etc.

5/10/16

D 86 -

Bat - female - 1 large foetus

"Senator Mine", Potholes, Imperial County, California

L 3.25" - T. 1.45 - H.F. .25 - E. .40 - Ext. 9.25

Coll. by D. R. Dickey - see D 85, etc.

D 87 -

Bat - male

"Senator Mine", Potholes, Imperial County, California

L. 3.15" - T. 1.45 - H.F. .25 - E. .40 - Ext. 9.10

Coll. by D. R. Dickey

Only male collected. Taken from a side tunnel alone - not from the breeding female colony.

May 11, 1916

Thursday

Seneca trap sprung over in arid wash across canal on edge of desert. Coyote tracks and a fox nearby - hope it is former. (Spoiled.)

Big migration wave of Cassin Kingbirds in the last few days (very common.)

The Blue Grosbeaks are pairing off and becoming localized as though in preparation for nesting - Common. Song a linnet-like warble but less in length if not volume. Position on a wire or high perch nearly always diagnostic. Almost exactly 1 to ground - tail and all. Saw several more of those dark yellow warblers in palo verdes, etc., of the desert gulches (sp.?). Laurence busy skinning yesterday's take. Aunt May sewed up bats, etc., and I pinned out. In to Yuma in afternoon. Saw more dark Yellow Warblers, one Tanager and several Blue Grosbeaks. White-wings quite common now on Indian land. Buzzards had been to "Seneca trap" during day but it was not reset. Set mammal traps.

Birds collected today were:

D 373 - Cooper Tanager - male - 8.00" - Coll. by L. Huey

D 374 - " " " (bird of 1915 - 8.00" - Coll. by L. Huey

D 375 - " " " 8.00" - Coll. by L. Huey

May 12, 1916

Friday

Set cameras untouched. Coyotes had been about but had not dared

touch bait. "Mebbo so next tam!" as Fred Doyon would say. Laurence had been hunting since 4:30 A. M. and had a couple of additional Tanagers when he came in to breakfast. Wrote notes and letters, etc., while he skinned. In afternoon ran down dike. Got couple of rabbits for bait. Road-runner nest now has four eggs - not ideal for movies but may do. My verdin found couple weeks ago had been clawed out by varmint. Fine position for movies - too bad! Muskrat in canal in main street of Bard but no time to put him up so let him go his way. Mammal traps this a. m. had a grasshopper mouse and one Peromyscus and one Neotoma (caught near nest) besides the usual run of the very common small Dipodomys and Perognathus. Dip. deserti apparently (from burrows) present but, as usual, hard to catch. I found Abert Towhee N/3. See Mams. # D88 to D93.

Birds collected were: (Potholes)

D 376 - Cooper Tanager - female - 8.00" - Coll. by L. Huey
 D 377 - " " male - " - " "
 D 378 - Thrush - male - 7.25" - " "

Mammals collected today were:

D 88 -

Grasshopper Mouse - female juvenile
 Pot holes, Imperial County, California - 5/12/16
 L. 5.60" - T. 2.25" - H.F. .80 - E. .65
 Coll by L. Huey
 Oatmeal bait - arid desert wash

D 89 - Peromyscus

Mouse - male
 Potholes, Imperial County, California - 5/12/16
 L. 6.90 - T. 3.50" - H.F. .75 - E. .75
 Coll. by L. Huey
 Oatmeal bait - arid desert wash

D 90 - Neotoma

Brush Rat - male
 Pot holes, Imperial County, California - 5/12/16
 L. 11.00" - T. 4.50" (Bobbed) - H.F. 1.25 - E. 1.10
 Coll. by L. Huey
 Caught beside nest in arid desert wash - oatmeal bait

D 91 -

Pocket Mouse - male - Potholes, Imp. Co, Cal - 5/12/16
 L. 7.75" - T. 4.30 - H.F. .90 - E. .25 - Coll. by L. Huey
 Caught on oatmeal bait in dry desert wash.

D 92 -

Pocket Mouse - male

Potholes, Imperial County, California - 5/12/16

L. 7.00" - T. 3.60" - H.F. .95 - E. .25

Coll. by L. Huey

Caught on oatmeal bait in dry desert wash

D 93 -

Pocket Mouse - female juvenile

Potholes, Imperial County, California - 5/12/16

L 6.75" - T. 3.75" - H.F. .80 - E. .20

Coll. by L. Huey

Caught on Oatmeal Bait in dry desert wash

May 13, 1916

Saturday

Set cameras again untouched although coyotes had again been snooping around. Mammal traps contained nothing of interest save a single *Peromyscus* of apparently a larger and lighter species than that collected yesterday. Aunt May and Laurence not back from the river bottom when I got home at 6:30 (we got a 5 o'clock start) so started to make movies of our little Elf Owl taken on the 10th in the Sahuaro patch. No way to do it except "in captivity" with these little nocturnal fellows but unfortunately, when I got all set up the string which spelled captivity broke and she hied herself back to her Sahuaros - good joke on Uncle Dick - no photos! - no bird! - no eggs! Packed nests, etc., till others returned. They had had hard luck and lost chance at trio of Tanagers - female, male and 1915 male. Two Sonora Yellow Warblers had nests nearly completed - first Hermit Warbler noted - and Laurence says the migration of White-wings down the river bank toward Yuma was a sight. Both agreed on 2,000 as a minimum estimate - an unending line of good flocks and stragglers winging in a bee line downriver to the Yuma grain fields - apparently all coming from the Arizona side where they have doubtless bred. Another new nest ready for eggs was found and thought to be Towhee. In afternoon we all went nesting - collected my Abert Towhee N/3 near cotton rat colony. Still had same three eggs as when

May 13-

found on 12 so full set insured. Bullock Oriole twenty feet up in mesquite also had full set of five eggs - collected. One unfortunately claw-marked. First case we have seen of claw-marked egg except when Cowbird egg was present. Collected our Arkansas Kingbird $1\frac{1}{4}$ near Whitneys' found on the - 4 eggs. I took one set Sonora Redwings in the near-by tule patch and then we revisited original Redwing colony near Bard, Laurence taking $3\frac{3}{4}$ and $1\frac{1}{5}$ and I $2\frac{1}{4}$ and $1\frac{1}{5}$. The second sets of the birds previously robbed seemed in this case to run larger. The sets overlooked in first place now had large young - three or four to nest. And yet each of us took a set of five and nothing less than four among these later second sets. Bullock Oriole nest twenty feet up in a flowering willow had five fine fresh eggs - collected. Found our Ash-throat (found on the 26th ult.) had been building, etc., all this time and only had three fresh eggs. The Sahuaro Screech Owls found on the same day were still half grown weaklings - grow very slowly in spite of bird diet. This individual pair seems to be bad in this way for there were small bird feathers almost filling bottom of the hole and no evidence of any mammal remains. Half-eaten carcass of a Thrush (Russet-backed?) in nest, also Yellow Warbler and, to my great surprise, the larger feathers of a Mourning Dove. Seems almost inconceivable that they should have tackled so big a bird yet there was the mute testimony. First nest of Screech Owls I have ever found which were undeniably and wholly bad. Across road Aunt May found Vermilion Flycatcher N/2 plus 1 Dwarf Cowbird in top of good-sized cottonwood. One of the Flycatcher eggs had the inevitable claw or bill peck which we have found in every case where Cowbirds were present. There are about four possible hypotheses which occur to me. In the order of unlikeliness, they are:

(1) Claw marking by original parents in natural course of rolling eggs in this hot climate - Too much data for this to be possible.

(2) Do. - except caused by efforts of parent Vireos, etc., to roll eggs that are heavier than they are used to - therefore they employ more force than they ordinarily would - therefore break or claw one of their own eggs more frequently than if no heavy egg was present - Against this is fact that Abert Towhee with eggs fully as heavy as Cowbird's nevertheless showed this same ever-present check.

(3) Cowbirds unintentionally claw a hole in egg of original owners when they climb into nest to lay their own. They are unaccustomed to incubating, etc., and therefore careless.

Any of above would hold as possible explanation but when you have on one side the data on dozens of Cowbird sets with checks and on the other side only the one Bullock Oriole N/5 collected today checked out of eighty sets or so without Cowbirds one finds it hard to attribute it to anything save:

(4) Malicious intent on part of Cowbird to kill the life in one, at least, of the eggs of the bird she is imposing on, in the hope that her own egg may thereby have the better chance for survival. Nature gives evidence of hundreds of instincts making for self preservation and species preservation which are quite as wonderful as this and in many of the cases the seeming intelligence shown is quite as great or greater than this, so there is nothing to cause comment on that score. Moreover, this intelligence of instinct shows itself in its most intricate and marvelous manifestations in just such cases as this, where maternal instinct is pitted against hostile forces for the preservation of the species. Just because the maternal instinct is lacking in some respects with these birds does not mean they lack keenness in insuring the perpetuation of the species according to their lights. In fact, the very opposite is true. The fact that the hatching and care of their offspring is left entirely to others necessitates added keenness on the

Cowbird's part in choosing the foster parents carefully and foisting the foundling on them in such a way as to meet with least resistance. We all have seen the sly cunning with which the female Cowbird has developed in slipping through the brush in search of nests adapted to her nefarious purpose. No bird, save perhaps the California Jay when on robbing bent, so typifies the clever sneak - moreover she is clever in her choice of nests - almost always those of a bird smaller than itself in competition with whose young its own would have an easy struggle for existence. It is the consensus of opinion that where a young Cowbird is present in a nest it means sooner or later the death of the legitimate young, either by starving in competition with the sturdy young Cowbird or else by being bodily kicked out of the nest by the stronger Cowbird. It is also a tradition at least that Nature has arranged matters so that the Cowbird's period of incubation is shorter than even the relatively smaller warblers and vireos and flycatchers generally chosen for the victims of its parasitical attacks. In this way a Cowbird's egg is deposited during the period when the victims' set is incomplete and when, therefore, incubation has not yet begun. In this way the interloper's deposition is less likely to be noted, or, at least, when the nest is less likely to be deserted as a result of this deposition. And yet this provision of shorter incubation for the Cowbird insures the hatching of the young Cowbird before the others and therefore insures it a good start and strength to kill off the other young as they come along. Another thing is accomplished by this choice of the Cowbirds of the period when the original set is incomplete, for the laying of their own egg. The foster parents are away from the nest more at that time than at any other and it is therefore easier for the Cowbird to slip in unnoticed and not cause desertion on that account - i. e. by being seen in the nest by the owners. As I say, Cowbirds are so thick here that they cannot always wait to lay at the

exact time they would choose and must sometimes lay before they can find more than a building nest. (One of the interesting things is to see how this is met by different species - Arizona Least Vireos seem invariably to desert) but when they can they choose the psychological time when, as I have said, the chances for the survival of their eggs are at their best. Surely if the dumb dictates of instinct can take all of the various and intricate chances for and against survival into consideration, weigh them and then induce the birds so to act as to use these forces to their own advantage - forces which we, with all our vaunted intelligence and reasoning, can only half understand and appreciate - it is not much to attribute to this same instinct the phenomena of destruction of one of the original eggs when the Cowbird substitutes her own. To do it clumsily by breaking the egg wide open would defeat its own purpose by causing the owners to desert. The tiny hole pecked in the side would be equally effective in killing the life within, and, as I say, is evidence of no greater cunning than instinct accounts for in other ways. It would almost seem as though, when any parent leaves the after care of its young to outside agencies, instinct lays herself out in arranging with very particular cunning the earlier details of egg laying, etc., as a sort of perpetuation insurance to offset the continued parental care of more normal species. Take for example the life cycle of the Bot Fly as contrasted with that of the Bee. The latter in true parental fashion feeds and nurses the offspring of the Queen Bee of the hive - food is specially prepared and in every way they are administered to in the safety of the hive interior. The details of these ministrations may be and are of interest but it is a normal example of parental (for the workers are to all purposes parents) care from the egg to maturity. See in contrast the which lays its egg as a

parasite as does the Bot. Every slightest detail must now be worked out and arranged for ahead of time by Instinct - for the moment the egg is laid, it is at the untender mercy of a harsh world - see the forethought which prompts the Fly to choose an animal suited to its purpose. The foresight which causes it to glue the precious egg not to the hair of any part of the animal but to a spot within reach of the animal's mouth. It is added evidence of prearrangement which causes the laying of the egg to irritate the animal, either because of an accompanying sting or some acid irritant on egg itself. Next the irritated animal bites at the spot and the egg is unwittingly but nevertheless efficiently transferred to the mouth and thence to the alimentary canal which is to furnish the proper culture medium for the egg in its transition grub stage. Thence out into the world again to complete its cycle and hatch again as a fly. There is no continued parental care there, but there is incredibly intelligent Instinct at work to insure the future of an egg deprived of parental care from the moment of laying. Is it not the same with the Cowbird - no parental care (of their own) after the moment the egg is laid but beforehand such prodigious foresight by Nature as to be positively uncanny. Nature gives the parasite the necessary short incubation period - and as an inheritance, furnished that instinct which prompts the shrewd quest for a suitable nest - the choice of that nest, wherever possible, as one most likely to insure the future of their own young - the laying of the egg in the slyest of manners so as to avoid danger of desertion on that score. Surely it is not much to add to the burden of intelligent foresight, which Instinct is already bearing, this last point of intentional destruction of at least one of the original eggs. And this, too, in the only way which would accomplish the result aimed at (i. e. with tiny bill or claw check). Whether in addition they

sometimes remove an egg bodily remains for some lucky observer who shall catch them in the act to tell. It would account for the short sets usually accompanying a Cowbird egg. This, however, would also be accounted for by that unconscious ovarian control by the female which seems to limit the complement to nest capacity. Receiving an extra egg gratis, the factory merely shuts down a day earlier than was scheduled. This is doubtless the explanation. At least, we'll have to take it as such until proof of the other is obtained. That this intentional destruction of one egg (mentioned above) is universal in all localities I do not contend. In the east I have no evidence of such an instinct, but I do contend that the cases of clawed eggs with Cowbirds in this locality are so universal as to absolutely preclude coincidence as to the cause.

The main thing, however, is the success their methods seem to have had here in the southeastern corner of the state. Whether it be luck, or the still small voice of Instinct, the recipe for turning out Cowbirds is certainly a good one. They are all over the shop down here - so thick as to almost "darken the sky" (as they used to say of Passenger Pigeons) when they fly up in flocks. One man who kills them constantly as a pest in his barnyard showed Laurence two-thirds of a bucket and while Laurence and Aunt May stood and looked on, he killed nineteen cowbirds at one shot. Though this was almost a daily occurrence, it made no impression on the flocks.

There is a secondary flight of migration on - small Flycatchers, Warblers, etc., are all over the shop. The fields and fences are fuller of birds than at any time this year since we have been here. Chats very common in willows for last couple of weeks.

Birds collected today were:

- D 379 - Son. Yellow Warbler - male - 4.75" - Coll. by L. Huey
Taken in river bottom near Potholes
- D 380 - Yellow Warbler - female - 5.00" - Coll. by L. Huey
Taken in mesquite (near Potholes) - migrating?
- D 381 - Sahuaro Screech Owl - juv. - 5.85" - L. Huey
From nest with D 384 - Bard, Imp. Co., Cal.
- D 382 - Vermilion Flycatcher - female - 5.50" - Coll. by D. R. Dickey
Inc. set D 87 near Bard
- D 383 - Sonora Redwing - female - 8.00" - D. R. Dickey
Near Bard, Imp. Co., Cal.
- D 384 - Sahuaro Screech Owl - juv. - 5.75" - L. Huey - see D 381

Eggs collected today were:

- D 75 - Pipilo aberti - A. O. U. 592
Abert Towhee - N/3
Near Potholes, Imperial County, California
5/13/16 - Inc. fresh - Bird flushed
Coll. by D. R. Dickey
Nest a well-built structure of green alfalfa stems
and fine grass placed two and one half feet up in
arrow-weed growing by fence beside path
(Found on 12th with 3 eggs)
- D 76 - Icterus bullocki - A. O. U. 598
Bullock Oriole - N/5
NEST ONLY
Near Potholes, Imperial County, California
5/13/16 - Inc. 2 days - (1 egg on 7th) - Both birds about
Coll. by D. R. Dickey - found on 6th by M. Canfield ready for
eggs
Nest of brownish plant fiber and a trace of cotton down - no
hair nor string - 20' up in a large mesquite - 1 egg claw-
marked
Nest only
- D 77 - Tyrannus verticalis - A. O. U. 447
Western Kingbird - 1/5
2 miles west of Potholes, Imp. Co., Cal.
5/13/16 - Inc. slight - both birds about
Coll. by L. Huey and D. R. Dickey
Nest usual mass of stems and cotton, etc.
placed in a cottonwood crotch 30' from the ground
- D 78 - Agelaius p. sonoriensis - A. O. U. 498a
Sonora Redwing - 1/4
2 miles west of Potholes, Imperial County, California
5/13/16 - Inc. slight - female flushed
Coll. by D. R. Dickey
Nest typical deeply cupped structure of interwoven
tule blades lashed to growing tule stems three feet
above the water of small reed swamp.

- D 79 - *Agelaius p. sonoriensis* - A. O. U. 498a
 Sonora Redwing - 1/5
 2 miles west of Potholes, Imperial County, California
 5/13/16 - Inc. advanced - Id. positive
 Coll. by D. R. Dickey
 Nest typical deeply cupped structure of interwoven
 tule blades lashed to growing tule stems three
 feet above the water of small reed swamp.
 This set and another set taken today only sets
 of five seen but too heavy to blow.
- D 80 - *Icterus Bullocki* - A. O. U. 508
 Bullock Oriole - N/5
 Bard, Imperial County, California
 5/13/16 - Inc. fresh - Id. positive
 Coll. by D. R. Dickey
 Nest typical pouch lashed by rim and sides to
 drooping limb of a blossoming willow - Nest
 constructed of grayish string, hair, etc.
- D 81 - *Pyrocephalus r. mexicanus* - A. O. U. 471
Molothrus ater obscurus - A. O. U. 495a
 Vermilion Flycatcher - N/2 plus
 Dwarf Cowbird 1 FLYCATCHER EGGS BROKEN
 Near Bard, Imperial County, California.
 5/13/16 - Inc. slight - female of 471 inc. (#D382)
 Nest typical except for absence of large foundation
 twigs - A shallow cup saddled on cottonwood limb
 forty feet from ground - 1 egg clawed?
 Coll. by L. Huey - first found by M. Canfield

Mammals collected today were:

- D 94 - *Peromyscus*
 Mouse - male
 Potholes, Imp. Co., Cal - 5/13/16
 L. 7.25" - T. 3.75" - H.F. .75 - E. .70
 Coll. by L. Huey
 Caught on oatmeal bait in dry desert wash

May 14, 1916
 Sunday

At last a coyote got courage to take rabbit and of course
 that was the one time in a year battery had died and Seneca failed to
 work. Irony of fate that it should have been on a coyote plate.
 Found T. Night N/1. Wrote notes, etc. all morning.

Laurence had been down in river bottom and found couple of
 Chat nests with one egg each and a new nest he hoped was Song Sparrow
 - Got female Tanager but the immature (1915) male he has been after for

three days proved too much for him. Vireo N/2 Cowbird

In afternoon set up blind at Road-runner N/4. On to Ston-ecker's (?) for a chat with him and then down to hog ranch near Bard for mess of Cowbirds. Killed twelve birds with one barrel. Made a little movie of young Sahuaro Screech Owl and some 5 x 7 films.

Photo Record - Sahuaro Screech Owl - juv. - Protar - F. 8 - 1/35" - 5 x 7 sp. film. 9 o'clock - 4" sun.

Movie Record - Sahuaro Screech Owl - juv. - 8 $\frac{1}{2}$ " Lens at F. 8 - 1/4 shutter - 4" to "fade in and out" - 20' or so in all.

Reset mammal traps in spite of fact that they contained nothing but Perognathus this morning.

Birds collected today were:

D 385 - Arizona Blue Grosbeak - male - 7.00" - L. Huey - Potholes
D 386 - Cooper Tanager - female - 8.00" - L. Huey - Potholes

The following taken near Bard

D 387 - Dwarf Cowbird - female - 6.50" - D. R. Dickey
D 388 - " " " 6.00" - D. R. Dickey
D 389 - " " " 6.50" - D. R. Dickey
D 390 - " " male 6.50" - D. R. Dickey
D 391 - Sonora Redwing - male - 9.00" - D. R. Dickey

May 15, 1916
Monday

Neither set camera touched - mammal traps set up another "draw" contained nothing but the common small Dipodomys this morning. Packed birds and mammals and left about 12:30 for Yuma with four boxes to ship. Good deal of feeling today along Border and recruiting brisk. Odd to see the conventional English posters in Post Office, etc., calling for men for our own army - or what passes for one.

They run

"Your Country needs you,
Your place is on the Border
The flag protects you
Protect the Flag"

Sent exp., bought supplies, etc., and was back as planned at 3:30 to make Road-runner movies, as her eggs are just hatching so she will be tamer today than at any other time. But Laurence had gone hunting for his immature Tanager instead and did not get back till 5:30. They had hunted hard for Yellow Warbler nests but could find no others and finished one is apparently deserted. One Chat nest found yesterday had two eggs. Other one robbed. Of course too late for movies so went over to see that the Seneca trap camera was all right. To my delight a varmint had sprung it in the late afternoon. Apparently it had been passing with a mouthful of food already caught when it smelled my large rabbit bait. It apparently cached its load of two baby rabbits and a young Abert Towhee and turned aside to pick up my bait. At the first touch flash went off and so scared him that he dropped my bait and never went back for his own cache either so the cubs or whatever the load was destined for had to go hungry till he could catch some more young critters. The interesting thing was the neat way in which the pile had been made. The Towhee had been put down first - across that one of the little rabbits and on top of that the other in as neat a ranked pile as the cross sticks of a bonfire.

Photo record - Seneca Trap - desert wash & creosote back. Rabbit bait - daylight - 1 oz. Vict. Normal - 1/200 - F. 2.9 - Varmint - See notes above of pile of cached food left in his flight - Double exposure - see plate fox.

Photo Record - 2 young rabbits and young Abert Towhee - dead, (Cache of above varmint) - 5" morning sun (5/16/16) Exp. 1/10" at F. 16 - 5 x 7 sp. film.

Birds collected today were: (Potholes)

D 392 - Cooper Tanager - male - (im. 1915) - L. ? - Coll. by L. Huey
 D 393 - Sonora Yellow Warbler - male - 5.00" - L. Huey
 (Tail of D 392 shot out)

May 16, 1916

Tuesday

Seneca set camera not touched since yesterday afternoon's rebaiting but bait had been stolen by Fox from other camera so must tend to arranging flash, etc., there tonight also. (Another night with nothing in the traps but *Dipodomys*.) Laurence found Texan Nighthawk N/2 on desert mesa near Nesbit set camera. Left for movies. In to Yuma again to fix ford in preparation for the grind through Mammoth Wash. Also to get filling in tooth replaced. Had fine visit with W. W. Brown who is at the S. P. Hotel collecting for John E. Thayer. He certainly is the last word as maker of perfect bird skins. Met Whitney on the way home. He quits for Reclamation Service today and goes into training tomorrow with the regulars. He has enlisted for "duration of trouble in Mexico". Equivalent to "For all time" unless we oust our present damn pussy-footing machine in Washington. Down to Road-runner blind about 4:00. Found something had happened to one of the eggs (or young?). Nest now contains two eggs and one tiny porcupine of a youngster. Set up movie and Laurence went back to machine to distract attention of old bird, but she was shy and slow in coming. At 4:45, to my astonishment, a Cactus Wren alit on side of the Road-runner's nest and after assuring herself owner was not about, proceeded to seize the young bird with all the assurance of a long-standing habit. It was lucky in getting 25 feet or so of movie of the performance so I have another bird irrefutably branded as a cannibal.

Movie Record - Cactus Wren robbing Road-runner nest - 4:45 p. m.
- 6" yellow desert sun - 25' film. Shutter 1/4 open - 9" lens at F. 8.

I have never seen any mention of their activities along these lines and to the best of my knowledge it is a new observation, quite a case of poetic justice for the Road-runner himself is a notorious

nest thief. The list of nestling thieves, then, in Southern California and among the birds themselves includes: Jays (two species), Crow, Raven, Wren-Tit, Cuckoo, Cactus Wren. The second the Wren seized the young I shouted and so rescued the youngster which was merely dumped out on the ground. He was later replaced in his nest. It remains to be seen whether or not his Nemesis pursues him. The parent Road-runner, while she stayed in the vicinity - occasionally uttering her queer harsh questioning note which sounds not unlike those toys we had as boys - a lead ball or spring which rattled against flat wood when shaken - Prrrrrrrr? - proved too shy to return to nest in the hour or so before sun got too yellow. Try her again tomorrow.

Laurence has got all eggs blown to date. Reset mammal traps and, while doing so, saw fine Prairie Falcon. Hovered for some time close about him. Set both cameras - nothing collected today.

May 17, 1916
Wednesday

Nesbit sprung. My old Seneca had been sprung by another varmint with a "trading" propensity. Day before yesterday when it took my rabbit (or started to, rather) it left its own cache of young rabbits and bird. This morning a male Western Tanager had been carefully laid at one side while the varmint (whatever it was) took a look at my rabbit bait. The "look" sprung camera - Tanager cache "overlooked" in haste of departure.

Photo Record - Nesbit - fox - bird bait - violent action - Data:
- Seneca set camera - "Trading" Varmint that left Tanager this time - rabbit bait - creosote back - 1 oz. Vict. Norm. - 1/200" - F. 2.9 - 4 x 5 Stand. Orthonon.

Interesting part is that the Tanager proved on dissection to be one Laurence had shot and spoiled in the willow bottom near the Colo-

May 17 -

rado and nearly a mile from this dry desert wash and across a bridge - day before yesterday.

Nothing in mammal traps except a *Peromyscus* already spoiled by ants at 6:30 when we went for him. I packed, etc., while Laurence and Aunt May went over to the Green Ranch. Sparrow Hawk in Flicker hole of the old Colony Tree (first robbed on 4/26/16) has another set of four eggs, having only moved its nest to another hole in same tree three feet from old nest. Set left. The ash-throats found building on the 26th of April across road have three eggs and have deserted as result of our opening nest three or four days ago. They then went to willow bottoms. Chat nest has three eggs and a Cowbird. One of Chat's eggs had been kicked over the side of nest and happened to catch in one of the large thick cobwebs of this country. Result is you could see plainly the inevitable check mark, etc. This trick of kicking one egg out as well as checking it may account for the universality of short sets where Cowbirds are present quite as probably as egg control by the owner of nest as suggested elsewhere. Yellow Warbler nest we have been watching is a "double decker" - i. e. the old bird has incorporated a Cowbird egg into the foundation of her nest and built another story above it. Cowbirds proved too thick, however, for she is now incubating two of her own eggs and a Cowbird. Latter collected. Aunt May's Vireo had two of her own eggs and two Cowbirds - the laying obviously, from egg variation, of two different birds. Laurence Huey took another Vireo nest with two Cowbird eggs. Vireo had deserted. They lead a hard life. Set of 1/4 Cactus Wren also collected. I went down to Road-runner blind soon after noon resolved to grin and bear the heat and out Herod the shy old girl in her own game of patience. Found nestling I had returned to nest was O. K. and another egg piped. Stripped to the skin but in spite of that sweat ran off me.

May 17-1916

About 2:30 was rewarded by her return to nest. Perching on side she thrust her bill down the youngster's throat and fed him by regurgitation without moving or withdrawing her beak for two minutes and twenty seconds. Have seen a variety of feeding processes but never a performance like that for duration, etc. Later she fed him at intervals but never for more than fifteen seconds or so. Subsequently I found the other chick had hatched and as I could not have differentiated between the two young from the portion of beak and neck that appeared about the nest rim, I wondered if what I saw had been the "special extra" session of the youngster's first meal - hence so protracted, etc. One time, later, when she fed, I could detect the ends of a soft greenish foliage, or inch worm, protruding from end of her beak. Possibly this was for the "day old chick". She brooded only few minutes this first time and was gone for half an hour. Returning at 3:00 she fed a youngster few seconds and then brooded five minutes. Then gone half hour and when she came back this time she perched on the edge of the nest and completely devoured the shell of the hatched chick (which had kicked out in the last three hours without parental assistance). So intent on job that at last I was able to get a good run of movie.

Movie Record - Road-runner - female (?) - Incub. 1 egg, 1 pipped egg and 1 young. 5" - 3:30" desert sun - cross light - shutter 1/4 open - Coil - Zeiss - $8\frac{1}{2}$ " - F. 8 - 20' or so of film.

Movie Record - Road-runner - female (?) - Adult returns to nest - feeds young at length (2'20") - perches on edge nest and eats shell, completely, of new hatched egg. 6" sun - 4:40 P. M. - Flatter light - 1/4 shutter - $8\frac{1}{2}$ " lens at F. 8 - 125' of film.

No more film so had to pass up fine chance at brooding movie.

Birds collected today were: (At Potholes)

- D 394 - Cooper Tanager (im male - 1915) - 8.00" - Coll. by L. Huey
D 395 - Son. Yellow Warbler - female - 5.00" - Coll. by L. Huey.

Birds collected today at Bard:

- D 396 - Killdeer - juv. - 3.00" - Coll. by L. Huey

Eggs collected today were:

- D 82 - *Heleodytes b. couesi* - A. O. U. 713
Cactus Wren - 1/4
Potholes, Imperial County, California - Broken in Preparation
5/17/16 - Inc. - Id. positive
Coll. by L. Huey
Nest characteristic globular affair of twigs, etc.,
grasses, etc., lined with feathers and placed ten feet
up in mesquite - found previously.
- D 83 - *Icteria v. longicauda* - A. O. U. 683a
Molothrus ater obscurus - A. O. U. 495a
Long-tailed Chat and Dwarf Cowbird N/3 plus 1
Potholes, Imperial County, California
5/17-16 - Inc. fresh - Id. positive
Coll. by L. Huey
Nest collected - among thick dead sprouts of
dead willow stump - 3' up - see notes
- D 84 - *Vireo belli arizonae* - A. O. U. 633a
Molothrus a. obscurus - 495a
Arizona Least Vireo and Dwarf Cowbird - N/2 plus 2
Potholes, Imperial County, California
5/17-16 - Inc. slight but begun - Id. - female shot
Nest collected - unusual type - close against main
stem of an arrow-weed eight feet from ground.
Material typical gray plant fiber. Exception to
the rule of Cowbird claw checking.
Coll. by M. Canfield.
- D 85 - *Vireo belli arizonae* - A. O. U. 633a
Molothrus a. obscurus - 495a
Arizona Least Vireo and Dwarf Cowbird - N/0 plus 2
Potholes, Imperial County, California.
5/17/16 - Inc. Id. positive
Nest typical pendant basket swung by rim from hori-
zontal fork of willow twig $3\frac{1}{2}$ ' from ground - thicket
large willows - Vireos had deserted
Coll. by L. Huey and D. R. Dickey
- D 86 - *Pipilo aberti* - A. O. U. 592
Abert Towhee - N/3
5/17/16 - Inc. fresh - Id. positive
Potholes, Imperial County, California
Nest handsome affair of gray green weed stems,
bark strips, etc., lined with horsehair. 3' up
in arrow-weed clump on fence row.
Coll. by L. Huey.

May 18, 1916
Thursday

Nesbit camera sprung. Nearby a rat trap had been packed off with its contents. Caught a Peromyscus and a Neotoma. Down in willow bottom to look for Yellow Warbler nests. Aunt May found one with rim nearly completed. I found one with hardly a start made on rim. Both in high crotches of cottonwood trees. Aunt May flushed Hawk from nest of four eggs plus 1 young - twenty-five feet up - took it for a Cooper. Had quite a flight shoot at White-wings as they passed from Arizona to the Yuma grain fields and back. Laurence and I each got a Tanager. He found five deserted nests of Vireos - shows the work the Cowbirds make for them. Down to old Road-runner at 3 :00. Found damn Cactus Wren (?) had exacted the penalty. Both young gone. Old bird had not deserted for about 4:00 she came and climbed on to nest. As I was slowly preparing to start movie she seemed to spot me inside blind, leaped to ground and did not return though I waited till six. Shyest bird I have ever worked with. Thought she was entirely accustomed to me and quite reconciled. Think she would have been if the young had not been stolen.

Photo Record - "Nesbit" set camera - Desert Wash - Ocotia back -
rabbit bait - Varmint (?) - 1 oz. Victor Normal - 1/200" at U. S. 4
- Fine Ring-tailed Cat.

Birds collected today were: (At Potholes)

D 397 - Cooper Tanager - male (1915) - 8.00" - L. Huey
 Handsomely spotted immature male of 1915 vintage
 D 398 - Cooper Tanager - female - 8.00" - L. Huey - Incubating
 D 399 - Arizona Blue Grosbeak - male - 7.00" - L. Huey
 D 400 - White-winged Dove - male - 11.50" - D. R. Dickey.

May 19, 1916
Friday

Had taken in set cameras, traps, etc., in preparation for a start for Salton as soon as I made last try for Road-runner movie this

afternoon, so the night brought us no results. That's ordinarily the best part about set cameras - like Cascarets they "work while you sleep". The morning, however, brought us a fine healthy sandstorm so nothing for it but to take in movie blind, etc., and give up. Too bad, for I came so near getting enough film for a world beater series of this shyest and most interesting of desert birds.

Collected a fine large land tortoise. Took a load of boxes into Yuma for shipment as we now have more than the Ford can get across the desert. Sure is a wild storm. Even Pilot Nob is obscured by the raging sand and the wheel tracks would fill^{flush} in 15' and make hopeless hard going even if we could find road at all. Nothing for it but to wait it out. Hard luck, for aside from delay it will rook the road for a week. Hate to think of breaking track.

Laurence had packed his stuff, blown eggs, and gone to river bottom. Collected our N/2 plus 2 Son. Yellow Warbler. Warbler had finally deserted but only after the third imposition by a Cowbird. First egg was built into foundation of second story of the double-decked (?) nest. Second was removed by Laurence on the 17th. This third proved, too much for her. Our hawk was incubating but Laurence missed her. Collected another spotted male Cooper Tanager and a female Western. Out in afternoon and collected couple sets Abert Towhee within thirty feet of each other and Bullock Oriole and blew up a rear tire - old Penn. - over a year old.

Birds collected today were: (At Potholes)

- D 401 - Cooper Tanager - male - 8.00" - Coll. by L. Huey.
 (Another variegated male of 1915 vintage)
 D 402 - Western Tanager - female - 7.00" - Coll. by L. Huey

Eggs collected today were:

- D 86 - Dendroica a. sonorana - A. O. U. 652a
 Molothrus a. obscurus - A. O. U. 495a
 Sonora Yellow Warbler and Dwarf Cowbird - N/2 plus 2

Potholes, Imperial County, California.

5/19/16 - Inc. Id. positive

Coll. by L. Huey

495a egg removed from nest on May 17th and today
the set of two Sonora Yellow Warbler remained
unchanged and so finally collected together
with another 495a laid since 17th. Bird finally
deserted but only after third cowbird egg.

Nest a double-decker - 1 cowbird below - 20' up in willow.

D 88 - Icterus bullocki - A. O. U. 508

Bullock Oriole - N/5

Potholes, Imperial County, California

5/19/16 - Inc. Both birds about

Nest lashed to upright stem of mesquite nine
feet from ground.

Coll. by D. R. Dickey

D 89 - Pipilo aberti - A. O. U. 592

Abert Towhee - 1/2

2 miles west of Potholes, Imperial County, California

5/19/16 - Inc. - Identity positive

BROKEN

Nest characteristic affair of bark strips, grasses & green
weed stems - lined with fine grasses and horsehair. 8' up
in branches of small cottonwood.

Coll. by L. Huey. Broken.

D 90 - Pipilo aberti - A. O. U. 592

BROKEN

Abert Towhee - 1/3

2 miles west of Potholes, Imperial County, California.

5/19/16 - Inc. Id. positive

Nest of bark strip and weed stems - lined
with fine grasses. In main fork of small
cottonwood eight feet up and less than thirty
feet from above - (D89). Next tree, in fact.

Coll. by D. R. Dickey

Broken

May 20, 1916

Saturday

Storm seems to have blown itself out. Kingbirds in our
windmill have not hatched an egg yet. Their set was completed (4 eggs)
on 5/7/16. Finished packing the Ford, etc., said good-bye to the "old
badger" - Perry Griggs - and left for home about 10 a. m. Left Yuma
at 11:25 for the last time this year. Had trouble getting through deep
sand up on to the Mesa out of Yuma Valley - but got through with no
more work than deflation and a little shoving - fine going up on the
open desert. Got almost to Sterling at twilight and camped for night.
Nothing of special bird interest - calm and positively cool after the

storm. Lucky on account of tire trouble.

May 21, 1916

Sunday

Salton Sea

Up at 4:15 and under way again soon after 5:00. Reached Niland at 8:15 without trouble. The last pitch off the Mesa before reaching Niland would be very hard for a car going the other way but downhill so O. K. for us. This was almost the only place where the wind had filled the tracks badly. Looked up Harris, the blacksmith, and he said we could drive right down to the sea. The islands of last year are now clear away from the sea and the Pelicans have deserted them. No wonder after the persecution of last year! Unfortunately there is still a fishing scheme on Sea Bird Island so they could not return to this old haunt, either. Capt. H. E. Davis, of Elephant Seal fame or (not notoriety, rather) is in charge at the latter place and says the feeding Pelicans around the Island are apparently from two colonies, for when their ponds are full some hike out for the west shore of the sea and part south as though for Laguna Salada country of Mexico. Latter would mean quite a daily flight but perfectly possible for these birds. As to the west shore colony, he was quite certain and said all the cormorants took the same line of flight with food, so doubtless they are with them. Unfortunately, his boat will not be in commission till next week so he will have to do any locating of the colony that is done as a side issue in his prospecting game. As the water recedes, new islands appear and it may be that they have chosen some low spit on the west side. Too bad for the old colony on "Sea Bird" or "Mullet Island," as Davis now calls it, was very picturesque and now easily accessible. That last is the trouble - too easy. Davis is much interested in chemical actions taking place under the sea near his island. Reactions are set up which cause almost daily eruptions of the bottom. In some

cases the soft acid eaten bottom and its water blanket are thrown "sixty feet into the air." (Davis) The Washington men are watching it with interest. On Mullet Island itself a shaft sunk only four feet uncovered a porous saturated crumbly stone (?) testing over 90% pure salicic acid. When I saw the shaft it was down eight or ten feet and the free gas was so strong they could only uncover a foot a week and then allow it to air for a week. The raw fumes from the lowest two feet where the aeration was not complete were chokingly strong and a shrike (excubitorides, doubtless) lay dead at the bottom as mute testimony of their power. As I saw, there is but little bird life. Dr. Evermann a week before had taken a set of Treg Blue Heron so the colony no consists of one pair. Some Cormorants seem to be trying to nest. A Barn Owl has been playing havoc with Davis' pigeons, etc. Apparently no mammals or not enough to keep him. Thought I detected rat sign in spite of Davis' assertion to the contrary.

But the strangest thing was a tame grayish Thrasher-like bird which it seemed almost certain must be a Bendires. Certainly I know the desert birds - or thought I did - and it is some wandering freak, but Davis is so attached to it I would not ask to collect it, so record valueless. Says it has a mate and has been a pet around the shed all spring.

Back to Niland for express, etc., and mail. Warmer today - 100° on platform at 3:00 p. m. Left for San Diego a half hour later as it is a useless waste to hang around till boat is fixed up and Pelican colony located. Three or four years ago it would have given beautiful stuff. The island is bold and rocky and wonderful site from composition standpoint. Found Imperial enjoying first "dry" Sunday in history. Disappointment as I had a fine desert beer thirst. Decided to drive through tonight to San Diego.

May 22, 1916
Monday
San Diego

Found the roads very bad from the fearful washouts of the winter so we drove all night and until 5:45 a. m. Both Laurence and I had a belly-full of driving before we got through - 4 p. m. to 5:45 a. m. makes quite a strenuous day of sand bucking in a Ford. Slept, did errands, had tires vulcanized and saw about old Giper's (?) boat for a Murrelet trip to Los Coronados.

May 23, 1916
Tuesday
San Diego

Decided to stay over on the long chance of finding a Rufus-crowned Sparrow nest. To my astonished delight I flushed a bird after an hour's work in the bunch grass draws of the Mesa country and uncovered her carefully hidden ground nest - not often you can set out to find a Rufus-crown and do it. Luck!

Aunt May found Phainopepla N/2 and, to my delight, N/3, and Arnold Casebere found Bell Sparrow, N/3. That and Rufus-crown left to insure complete sets. Took a swing around in the afternoon to look at our old favorite collecting grounds. The Rail marshes are swept clear of their thick salicornia growth and entirely silt and sand-covered in some places. I found Belding M. Sparrow N/3. To my astonishment, places that last year were low salicornia marshes were now open sandy wastes taken possession of by horned larks and in one place even a gopher had worked out a quarter or half mile from high ground. That was the result of the floods on our beloved San Diego and Sweetwater marshes. We then went up to the Junction and found the damage to the small bird haunts almost as bad. All undergrowth gone and willows sparse and ragged. Bonita was almost as bad. Add the limitation of nesting sites for hawks due to cutting away by the water of many of the Otay

V. sycamores, etc., and mighty poor collecting ground for the present.

Eggs collected today were:

- D 91 - Phainopepla nitens - A. O. U. 620
Phainopepla - N/3
San Diego, California
Coll. by M. Canfield
5/23/16 - Inc. female inc.
Nest the usual compact low-rimmed cup of soft
gray down and weed tips, etc. In main
fork of pepper tree twelve feet from ground.
- D 92 - Phainopepla nitens - A. O. U. 620
Phainopepla - N/2
San Diego, California EXCHANGED
5/23/16 - Inc.
Nest typical but smaller than above - 8'
from ground in fork of scrub live oak.
Coll. by M. Canfield
Exchanged to L. Huey 5/23/16
- D 93 - Passerculus beldingi - A. O. U. 543
Belding Marsh Sparrow - N/3
San Diego, California - 5/23/16 - Inc. - Bird flushed
Coll. by D. R. Dickey
Nest a cupped affair of dry salicornia set directly
on the level damp soil of the Sweetwater Marsh - Only
slightly protected by sparse growing salicornia left by
the floods of this winter. Ordinarily they raise the
nest a few inches from ground in dense salicornia but
this year they are put to it.

May 24, 1916

Wednesday

Collected the Rufus-crowned Sparrow set I found yesterday.

Still only N/3 so set certainly complete. Bell Sparrow had N/4 today
so both complete and fresh. Repacked and left for Pasadena - Seems cold
and bleak after the desert.

Eggs collected today were:

- D 94 - Aimophila ruficeps - A. O. U. 580 - Rufous-crowned Sparrow - N/3
San Diego, California - 5/24/16 - Inc. - female inc. and flushed
Coll. by D. R. Dickey male singing near.
Nest a depression cupped into ground on the protected bunch
grass side of a little open draw running up to high mesa land.
Depression lined entirely with fine dry bunch grass and cunningly
hidden under the downhill edge of a standing clump of dry bunch
grass. I had found set with three eggs yesterday so completion
of set is assured.
Had stayed over a day with the avowed purpose of finding one
so much delighted.

D 95 - *Amphispiza belli* - A. O. U. 574
Bell Sparrow - N/4
San Diego, California
5/24/16 - Inc. fresh - Bird inc.
Coll. by Arnold Casebere for D. R. Dickey.
Nest composed entirely of soft dry flower
and weed stems and blossoms. Placed eighteen
inches above ground in small bush.
Set completed this morning.

